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Canadian Coast Guard | Garde côtière canadienne

Canadian Coast Guard

Safety First, Service Always

BUSINESS PLAN 2010-2013

Canada

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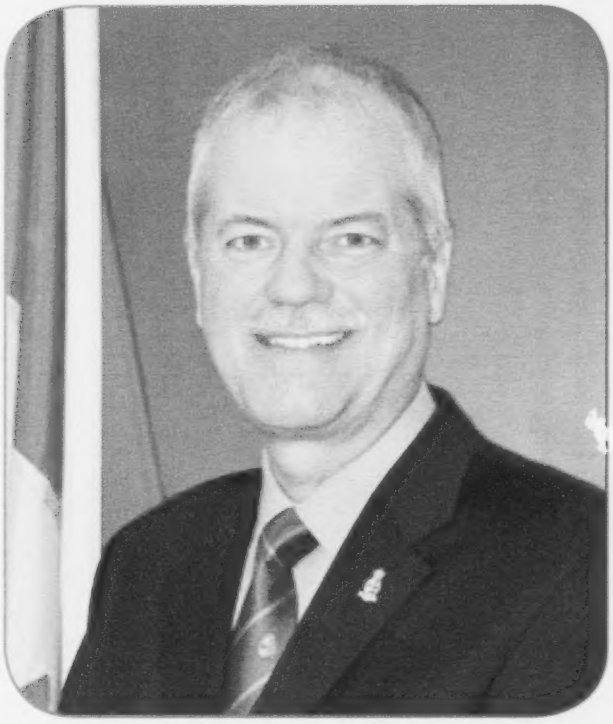
Message from the Commissioner



It is an honour to present this, my first Business Plan as the Commissioner of the Canadian Coast Guard. My predecessor, George Da Pont, led this great organization for close to five years. Among his many achievements, before his departure in late June, he set the direction for the organization in this Business Plan. I wholeheartedly support the priorities and course it charts for the Canadian Coast Guard.

Whether ensuring our capacity and ability to deliver our programs and services, fulfilling our commitments to our clients and Canadians, or supporting the priorities of the Government of Canada, the Canadian Coast Guard (CCG) is always mindful of the need to anticipate and meet the demands and challenges of the future.

We have successfully integrated human resources management into our business planning process by developing the Agency's Strategic Human Resources Plan. We also established national consistency in program delivery, business management practices and vessel maintenance management.

Thanks to these improvements, we can now turn the page on many of the issues our organization faced once it became a Special Operating Agency, and concentrate more on our business objectives. This year, we have simplified our priorities to provide a clear and succinct focus on the factors vital to our success: Our People, Our Assets, and Our Future. In so doing, we have provided greater clarity to our business goals which now reflect the current and future needs of our clients, of Canadians, and the evolving priorities of the Government of Canada.

In the recent Speech from the Throne, the government affirmed that jobs and growth remain a top priority as it continues to implement Canada's Economic Action Plan, while also charting a course to rein in future spending growth.

In a climate of fiscal restraint, it is vital that the CCG has a strong Business Plan that illustrates our need to look to the future while remaining true to our commitment of continuous improvement in all aspects of our operations by setting both realistic and achievable goals.

This Business Plan represents a benchmark for the Agency. Through careful planning, strategic thinking and the hard work of our employees, CCG will continue on its course to modernize the Agency through innovation and new technologies and by recognizing future opportunities for the Canadian Coast Guard.

Marc Grégoire
Commissioner, Canadian Coast Guard

Introduction

The Canadian Coast Guard (CCG) developed this comprehensive, integrated Business Plan to set out, in one place, its strategic priorities and operational activities. It is an expanded version of the CCG material in the Report on Plans and Priorities for Fisheries and Oceans Canada (DFO) that is tabled in Parliament every year.

The Business Plan covers a three-year period and is updated annually. A number of the initiatives and commitments described in this Business Plan are responses to reviews and reports. For this reason, we have highlighted with acronyms the commitments related to our 2006 A-Base Review (A-Base), the 2007 Report of the Auditor General (AG), the Sustainable Development Strategy (SDS), the DFO 2008-2011 Employment Equity Management Action Plan (DFO EE Map) and the findings of the Public Service Employee Survey (PSES) conducted in 2008.

The Business Plan is divided into seven sections:

1. "Who We Are and What We Do" sets out our mandate, our clients, the way we are structured and managed, the general results we seek to achieve, and the way our activities link to the work of other government departments.
2. "Where We Are Now" summarizes our operating environment, with the associated impacts and risks.
3. "What We Are Focussing On" sets out our strategic priorities.
4. "Regional Perspective" describes region-specific activities.
5. "What We Do Every Day" describes our operational activities and ongoing services.
6. "Stewardship/Strengthening Management" describes our efforts to strengthen our management practices.
7. "Financial Information" sets out how we have allocated the funding provided by Parliament.

In addition, there are a number of annexes, including ones that provide detailed information on our capital expenditures and the way we are responding to various recommendations from the Auditor General.

There are two progress reports on Business Plan commitments each year: one at mid-year and one at the end of the fiscal year. These progress reports are posted on the Coast Guard website and are publicly available.

Other information about CCG activities can be found in the Strategic Human Resources Plan, the Integrated Investment Plan, and the Fleet Annual Report. These reports are available, along with the Business Plan, on the Coast Guard website.

Vision

Through innovation and excellence, a recognized leader in maritime services and safety.

Mission

Canadian Coast Guard services support government priorities and economic prosperity and contribute to the safety, accessibility and security of Canadian waters.

Organizational Values

- *Teamwork*
- *Professionalism*
- *Integrity*
- *Quality service*
- *Innovation*

Coast Guard History

The first lifeboat and lighthouses in Canada were established on the east coast during the 1700s. In response to an urgent need for protection and regulation of fishing and shipping vessels, patrol vessels appeared along the eastern seaboard and in the Great Lakes region during the 1800s.

At Confederation in 1867, the federal government assumed responsibility for marine affairs including the operation of government vessels and for various elements of marine infrastructure, including:

- Aids to navigation;
- Lifesaving stations;
- Canals and waterways;
- Marine regulatory bodies; and
- Supporting shore infrastructure.

The Department of Marine and Fisheries was established in 1868 to discharge the federal marine mandate. In 1910, the Naval Service of Canada, precursor to the Canadian Navy, was established from a portion of the departmental fleet. Marine and Fisheries became two separate departments in 1930 and, in 1936, responsibility for marine transportation shifted to the new Department of Transport (DOT).

The DOT maintained a fleet of 241 vessels that has subsequently evolved into the CCG fleet. This fleet had a number of missions that now fall under the CCG mandate, including the maintaining of navigation aids, icebreaking, and search and rescue.

Starting in the 1940s, many organizations and communities pressed the government to form a national coast guard. The Canadian Coast Guard was officially created on January 26, 1962. The Canadian Coast Guard College was established in 1965 in Cape Breton, Nova Scotia, to train men and women for service in CCG.

The federal government has restructured CCG twice since 1962:

- With the 1995 merger of Coast Guard into Fisheries and Oceans, the DFO Science vessels and the Fisheries Conservation and Protection fleet were incorporated into the Coast Guard fleet. The merger facilitated better use of resources through multi-tasking vessels and allowed a reduction in the size of the newly combined fleet.
- In 2005, CCG became a Special Operating Agency (SOA) within DFO. SOA status affirmed the Canadian Coast Guard as a national institution and emphasized its essential role providing the maritime services required by users of Canadian waterways. It also confirmed Coast Guard as the operator of the government's civilian fleet in support of programs within DFO and in other government departments. SOA status enables CCG to focus on service delivery and provides the operational and financial flexibilities necessary to do so.

(1) WHO WE ARE AND WHAT WE DO

The Canadian Coast Guard has a direct and important impact on the lives of Canadians. We help ensure the safe use of Canadian waterways, and we facilitate the smooth functioning of the Canadian economy.

A nationally recognized symbol of safety, Coast Guard serves on three oceans, the St. Lawrence River and Great Lakes, and other major waterways. Often CCG is the only federal presence in many remote, Aboriginal, and Arctic communities. Operating along the longest coastline in the world and in some of its most difficult weather conditions, CCG operates 24 hours a day, every day of the year (for information on what we do every day, please refer to Section 5).

Legal Mandate

Coast Guard's mandate derives from the *Constitution Act, 1867*, which gives the federal government exclusive legislative authority over navigation, shipping, beacons, buoys, lighthouses, and Sable Island.

The *Oceans Act* gives the Minister of Fisheries and Oceans responsibility for services for the safe, economical, and efficient movement of ships in Canadian waters through the provision of aids to navigation, marine communication and traffic management services, icebreaking and ice management services, and channel maintenance.

The *Oceans Act* also gives the Minister responsibility for the marine component of the federal search and rescue program, marine pollution response, and support to other government departments, boards, and agencies through the provision of ships, aircraft, and other services.

The *Canada Shipping Act, 2001* gives the Minister of Fisheries and Oceans responsibilities, powers, and obligations with respect to aids to navigation, Sable Island, search and rescue, pollution response, and vessel traffic services.

Under the *Arctic Waters Pollution Prevention Act* (AWPPA), a Ministerial Order may be signed for and issued on behalf of the Governor-in-Council by the Minister of Transport, to provide support and visible written authority for actions taken on their behalf by a designated On-scene Commander of an Arctic spill incident. Subject to regulations under AWPPA and to applicable inter-agency agreements, the Canadian Coast Guard has lead-agency responsibility for ensuring responses to ship-source spills, mystery-source spills, and ship-source pollution incidents that occur as a result of loading or unloading to or from ships or oil-handling facilities in Arctic waters of Canadian interest.

Who We Serve and What We Do

Operating as Canada's only national civilian fleet, we provide a wide variety of programs and services to Canadians on four equally important levels: delivering CCG's own programs; supporting Fisheries and Oceans Canada (DFO) programs; supporting other government departments; and supporting government decisions, priorities and the broader federal agenda.

On an **average day**, CCG:

- Saves 8 lives;
- Assists 55 people in 19 search and rescue cases;
- Services 55 aids to navigation;
- Handles 1,547 marine radio contacts;
- Manages 2,325 commercial ship movements;
- Escorts 4 commercial ships through ice during the ice season;
- Carries out 11 fisheries patrols;
- Supports 3 hydrographic missions;
- Supports 8 scientific surveys;
- Deals with 3 reported pollution events; and
- Surveys 5 kilometres of navigation channel bottom.

CCG plays a critical role in the lives of Canadians by operating along the single longest coastline in the world, the Great Lakes, the St. Lawrence Seaway system, and the Mackenzie River. We provide services to commercial shippers, ferry operators, fishers, recreational boaters, ports, coastal communities, and the general public. For example:

- We are mission-ready 24 hours a day, 7 days a week and operate in almost all conditions. When extreme weather hits and other vessels are being called into port, Coast Guard vessels are often asked to head out to sea to save lives, to break ice to free trapped vessels, or to provide whatever assistance is needed to enable safe passage
- We are a visible symbol of federal presence and provide the capacity to assert Canadian sovereignty, especially in the Arctic

- We support on water safety and security by responding to mariners in distress, disasters and emergencies with one of the most effective maritime search and rescue systems in the world, supported by the air assets of the Canadian Forces and the volunteers of the Canadian Coast Guard Auxiliary
- We contribute to Canada's overall economic prosperity by providing essential support for our country's $160 billion global and domestic marine trade industry. For instance, we maintain and service about 17,500 buoys of all sizes that mark safe passages through our waterways. We also provide essential icebreaking services that enable shipping to move safely and efficiently through ice covered waters in Eastern Canada and the Great Lakes throughout the winter, and in the Arctic throughout the summer. Icebreaking services keep most Canadian ports, especially Montreal, open for business year-round, prevent flooding along the St. Lawrence River, and support ferry operators, fishers, and coastal communities
- We are the lead federal agency for all ship-source and mystery-pollution spills in waters over which Canada has jurisdiction, with enhanced responsibilities in the Arctic
- We support science activities by providing a platform for scientists from DFO and other federal government departments, Environment Canada, Natural Resources Canada and the Natural Sciences and Engineering Research Council of Canada. We facilitate important scientific activities and research such as science surveys essential for determining biomass and stock assessments leading to fisheries allocations; charting to enable safe navigation; freshwater research in the Great Lakes; seabed mapping to help establish Canada's claims under the United Nations Convention on the Law of the Sea; and research to assess the changing ocean conditions and the impacts of climate change
- We support the security and enforcement activities of DFO with vessels dedicated primarily to fisheries enforcement to ensure an orderly and sustainable fishery that complies with fisheries regulations. We also support the maritime security activities of the Royal Canadian Mounted Police (RCMP) by participating in joint programs on the Great Lakes and St. Lawrence Seaway, as well as maritime security activities of the Department of National Defence, the Canada Border Services Agency, and Public Safety Canada
- We support other non-military activities of other Canadian government departments such the Department of Foreign Affairs and International Trade, Health Canada, and Transport Canada.

How We Are Structured and Managed

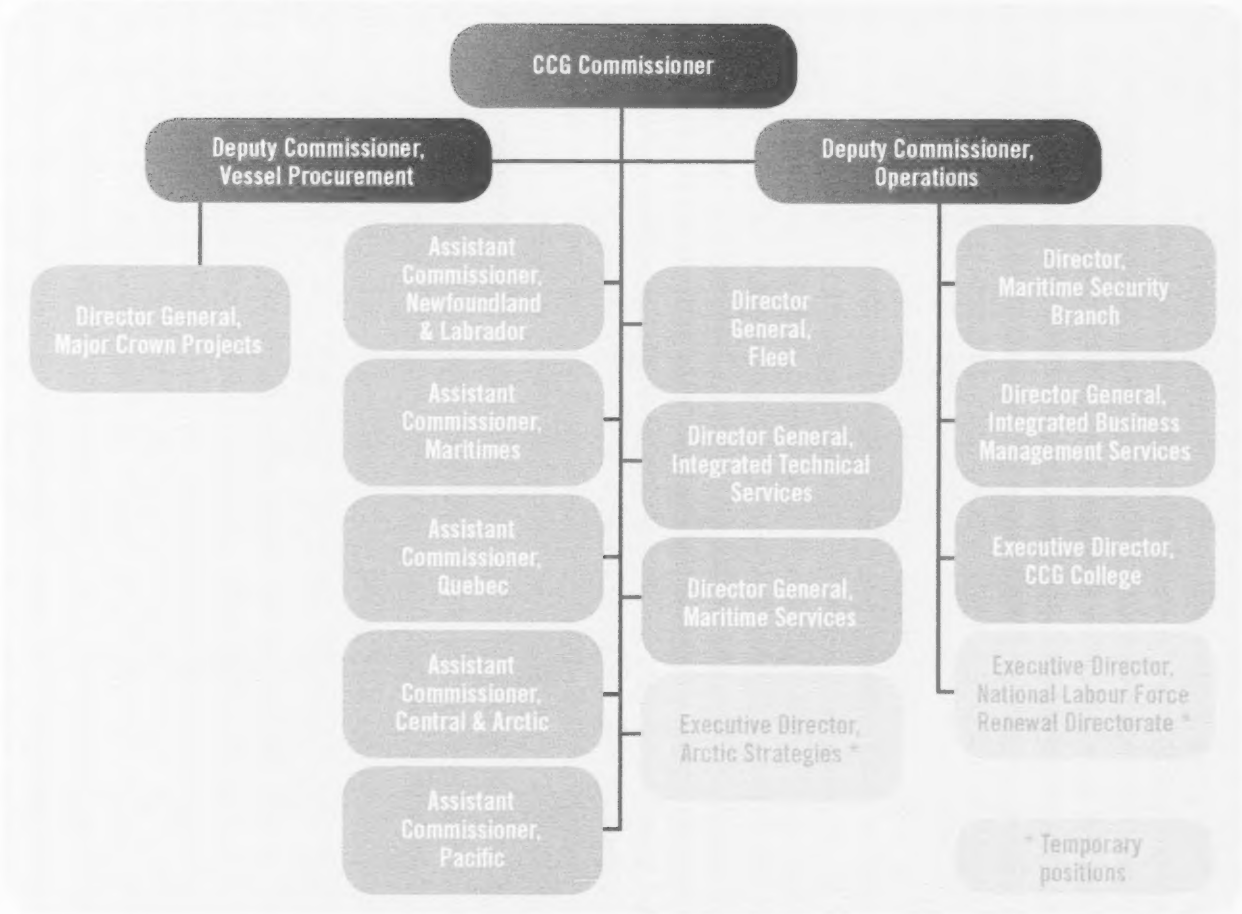
The Canadian Coast Guard is a national agency with its headquarters in Ottawa (the National Capital Region) and five regional offices (Newfoundland and Labrador, Maritimes, Quebec, Central and Arctic, and Pacific). CCG is a highly decentralized organization, and the vast majority of its employees are located outside the National Capital Region.

The Commissioner is the Chief Executive Officer of the Agency, reporting and accountable to the Deputy Minister of Fisheries and Oceans Canada for the performance of the Coast Guard. The Commissioner has the full authority of an Associate Deputy Minister, with the exception of Section 33 of the *Financial Administration Act*, reflecting the intention of the Coast Guard to rely on DFO for comptroller functions. The Coast Guard has two Deputy Commissioners, both of whom report to the Commissioner: the Chief Operating Officer and the Deputy Commissioner, Procurement. The latter position was created in 2009-2010.

At headquarters, there are five directorates (Maritime Services, Fleet, Integrated Technical Services, Integrated Business Management Services, and Major Crown Projects), each led by a Director General (DG) who is responsible for policies, programs, plans, and service standards for their functional areas. Each of the five regions is led by an Assistant Commissioner (AC), who is responsible for directing the delivery of all Coast Guard services in that region, consistent with national standards, policies and practices.

This organization and governance information is shown in Figure 1.

Figure 1: CCG Management Structure


CCG Commissioner
Deputy Commissioner, Vessel Procurement
Deputy Commissioner, Operations
Director General, Major Crown Projects
Assistant Commissioner, Newfoundland & Labrador
Assistant Commissioner, Maritimes
Assistant Commissioner, Quebec
Assistant Commissioner, Central & Arctic
Assistant Commissioner, Pacific
Director General, Fleet
Director General, Integrated Technical Services
Director General, Maritime Services
Executive Director, Arctic Strategies *
Director, Maritime Security Branch
Director General, Integrated Business Management Services
Executive Director, CCG College
Executive Director, National Labour Force Renewal Directorate *
* Temporary positions

Coast Guard Management Board (MB) is the Agency's senior decision-making body. The Board is chaired by the Commissioner and comprises the Deputy Commissioner, the Directors General, the Assistant Commissioners, and the Executive Directors of the Canadian Coast Guard College, Arctic Strategies and the National Labour Force Renewal Directorate. The senior human resources advisor, the senior legal advisor, the senior financial advisor, the senior communications advisor, and the Executive Advisor to the Commissioner are ex officio members of MB. MB is supported by a number of permanent and temporary sub-committees.

External Advisory Groups

National Marine Advisory Board (NMAB) and Regional Marine Advisory Boards (RMABs) – The NMAB and its six regional counterparts (RMABs) are the Coast Guard's primary interface with the marine shipping industry. They provide a forum for discussion of shared priorities and objectives, as well as for the feedback on service delivery that CCG requires as a service provider.

Additionally, at the regional level, CCG consults with a variety of stakeholders, including fishers and recreational boaters, through various local fora such as Local Marine Advisory Councils and fishers advisory groups. CCG also participates in Transport Canada-led national and regional Canadian Marine Advisory Councils and Recreational Boating Advisory Councils.

Strategic Advisory Council (SAC) – Chaired by the Deputy Minister of Fisheries and Oceans Canada, SAC comprises Deputy Ministers from departments and agencies that receive support or services from Coast Guard. SAC's role is to provide input to strategic decisions and performance feedback on CCG service delivery.

Where We Fit:

Coast Guard, Clients and Stakeholders, and the Government of Canada

CCG does not operate alone. We work with many clients and stakeholders within and outside DFO, and our activities support the results those clients and stakeholders are seeking to achieve, as well as certain government-wide objectives. These activities, linkages, and desired results are shown in the figure below.

Coast Guard provides these services:

Aids to Navigation
Waterways Management
Marine Communication and Traffic Services
Icebreaking Services
Search and Rescue Services
Environmental Response Services
Maritime Security
Fleet Operational Readiness
Lifecycle Asset Management
Canadian Coast Guard College

Canadian Coast Guard

To achieve these results for Canadians...

- Safe, economical and efficient movement of maritime traffic in Canadian waters.
- Civilian fleet operationally ready to deliver Government of Canada requirements for an operationally ready fleet.

Measured this way...*

- Number of vessel movements facilitated through the provision of CCG maritime safety services (maintain a 3 year average).
- Satisfaction rate (percentage) of CCG meeting Government of Canada requirements for an operationally ready fleet.

* NOTE: CCG has committed to consulting clients and stakeholders and adjusting its Performance Measurement Framework, including targets, where required. As a proxy, CCG will assess its performance against the extent to which all sub-activity targets are met.

To help our clients and stakeholders achieve their own results and objectives:

For DFO, its three strategic outcomes:

Safe and Accessible Waterways (directly)
Healthy and Productive Aquatic Ecosystems (indirectly)
Sustainable Fisheries and Aquaculture (indirectly)

For the Government of Canada, these two government-wide outcomes:

Sustainable Economic Growth
Safe and Secure Communities

For other government departments and agencies

Their own results and objectives

(2) WHERE WE ARE NOW

CCG's risks and challenges have been identified in several sources:

- Our 2006 A-Base Review;
- The 2007 Report of the Auditor General;
- An environmental scan conducted in Fall 2009; and
- Our 2009 risk profile.

In 2009, CCG updated its risk profile. This involved taking a careful look at the environment in which we operate, as well as identifying and assessing the risks and challenges that could prevent us from achieving our objectives. We also identified mitigation efforts to help us manage those risks. This review confirmed that the risks are largely unchanged from the previous risk profile, which was carried out in 2006. These results were incorporated into our priority-setting and decision-making exercises.

We will respond to this challenge/risk...	With these strategies or key initiatives...	Which are described in detail...
Securing the Next Generation of Human Resources*	A Qualified and Representative Workforce	On page 14
(Also identified in DFO's Corporate Risk Profile, as Human Capital)	Develop and Support People	On page 16
In looking ahead over the next few years, CCG is expecting attrition rates to rise. By 2014, CCG anticipates that approximately 1,372 employees (31% of our total workforce) will leave the Agency. This includes the potential loss of 786 employees from our at-risk groups (Ships' Officers, Ships' Crew, Marine Communication and Traffic Services Officers, Marine Electronics Technologists and the Engineering Community) which represents 57% of total projected departures.	Fair and Effective Management	On page 16
	Marine Communication and Traffic Services Technical Training	On page 43
	Fleet Operational Readiness Human Resources Initiatives	On page 63
CCG plans to address these challenges by focussing on: a qualified and representative workforce, developing and supporting people, and a fair and effective management. Key initiatives will help support recruitment and retention efforts within the five at-risk groups.	The Engineering Community	On page 66
	Canadian Coast Guard College Transformation Initiative	On page 69
Evolving Demand for Coast Guard Services	Updating the Coast Guard's Long-term Fleet Renewal Plan	On page 18
(Also identified in DFO's Corporate Risk Profile, as Stakeholder Expectations)	Procurement of New and Replacement Vessels	On page 18
Despite the recent global economic downturn, marine traffic is expected to increase in the medium to longer term. Increased traffic and rapid technological advancements in the marine industry, such as increasing offshore oil and gas exploration and climate-change impacts (including fluctuating water levels and the potential for lengthening of shipping seasons), are expected to place increased demands on Coast Guard Maritime Services programs (including Aids to Navigation, Icebreaking, Search and Rescue, Environmental Response, Marine Communication and Traffic Services and Waterways Management). CCG also needs to be in a position to respond to the evolving maritime needs of the Government of Canada. The increasing emphasis on the Arctic, for example, will create both challenges and opportunities for Coast Guard. CCG will have to balance the needs, demands and expectations of Canadians, clients and stakeholders within available resources.	Long-term Planning for Shore-based Infrastructure	On page 21
	e-Navigation	On page 23
	Strengthening our Ability to Meet Obligations in the Arctic	On page 24
	Review of Lightstation Services	On page 36
	Post-Panamax Study, St. Lawrence River	On page 39
	NAVAREAs (Navigational Areas)	On page 42
	Health of the Oceans	On page 54
	Strategic Program Framework for CCG's Maritime Services	On page 73
	Service Level Agreements with DFO Clients	On page 74

* *Identified as a key risk in the CCG Corporate Risk Profile 2009*

We will respond to this challenge/risk...	With these strategies or key initiatives...	Which are described in detail...
Aging Infrastructure*		
(Also identified in DFO's Corporate Risk Profile, as Physical Infrastructure)		
The CCG fleet of 40 large vessels continues to deteriorate, affecting vessel reliability and the ability to meet program demands. As the vessels age, more breakdowns occur and maintenance costs increase. In the past few federal budgets, the Coast Guard received $1.4 billion to acquire 14 new large vessels and an additional $27.3M in Budget 2010 for an Air Cushion Vehicle. However, it will take several years to acquire all these vessels. Budget 2009 provided $175 million, through the Economic Action Plan, to acquire 98 small boats and barges, and to conduct refits and vessel life extensions on 5 large vessels, which will help the transition.	Updating the Coast Guard's Long-term Fleet Renewal Plan	On page 18
	Procurement of New and Replacement Vessels	On page 18
	Economic Action Plan	On page 20
Despite significant investment since 2003, our shore-based infrastructure (e.g., CCG bases, fixed aids to navigation, radio towers, and Marine Communication and Traffic Services Centres) is beyond its operational life expectancy and continues to deteriorate. The challenge is to acquire and maintain the assets needed to deliver services in light of the aging infrastructure and to respond to rapid technological changes, for example, navigational services moving away from traditional physical aids toward more modern electronic and information-based service.	Long-term Planning for Shore-based Infrastructure	On page 21
	Aids to Navigation of the 21st Century (AToN21)	On page 35
	Improved Maintenance of the Existing Fleet	On page 62
	Improved Maintenance of Existing Shore-based Infrastructure	On page 66
Functioning as a Truly National Institution	Lifecycle Management System Guidance Manual	On page 65
	Asset Management System	On page 65
Both the Auditor General and our own internal A-Base Review indicated that we need greater consistency in the design and delivery of our national program while safeguarding regional operational authority and responsibilities.	Improved Maintenance of Existing Shore-based Infrastructure	On page 66
	Communication Protocols	On page 73
	Stronger Canadian Coast Guard Identity	On page 74
Partnerships in Service Delivery*	Procurement of New and Replacement Vessels	On page 18
(Also identified in DFO's Corporate Risk Profile, as Partnering and Collaboration)		
CCG relies on the assistance of third parties to address functions critical to the delivery of CCG programs and services, such as corporate services, acquisitions, and procurement. Simplifying federal procurement is a top priority of the government, and Coast Guard must work closely with other federal departments and central agencies to develop more streamlined processes to acquire assets and capabilities needed for the delivery of services. The Agency also works with and relies on other federal government departments, agencies, and volunteers (such as the Canadian Coast Guard Auxiliary (CCGA) and a variety of other stakeholders) to help fulfil federal mandates for Canadians. CCG's challenge in this regard is to strengthen the effectiveness of our partnerships.	e-Navigation	On page 23
	Post-Panamax Study, St. Lawrence River	On page 39
	Marine Security Enforcement Team	On page 57
	Marine Security Operations Centres	On page 57
	Review of the Working Relationship with DFO's Human Resources and Corporate Services	On page 72
Managing Information*	Long Term Planning for Shore-based Infrastructure	On page 21
(Also identified in DFO's Corporate Risk Profile, as Information for Decision Making)		
A number of reports, reviews, and exercises have highlighted the need for us to improve our ability to acquire, apply, manage and communicate the information needed for business, operational, maintenance and investment decision-making, as well as performance measurement. Such information is critical to support day-to-day operations and for strategic decision-making.	Upgrade Vessel Traffic Information Systems	On page 22
	Research and Development Strategy	On page 26
	Strategic Program Framework for CCG's Maritime Services	On page 73
Maritime Security	Procurement of New and Replacement Vessels	On page 18
	Upgrade Vessel Traffic Information Systems	On page 22
Since September 2001, CCG has been a core partner in Canada's multi-agency approach to maritime security. CCG has a broad mandate to provide support to other government departments, and the government and Canadians expect that CCG will be ready and able to respond in support of other departments' security mandates. As a result, CCG has received dedicated national security funding to deliver support for maritime security activities. Because the CCG contribution to the collaborative delivery of maritime security is one of proactive support within partnerships with the federal intelligence and enforcement communities, it is important to clearly articulate CCG's role both within the organization and for our partners.	Strengthening Our Ability to Meet Obligations in the Arctic	On page 24
	Marine Security Enforcement Team	On page 57
	Marine Security Operations Centres	On page 57
	Automatic Identification System	On page 58
	Long Range Identification and Tracking System	On page 58

* *Identified as a key risk in the CCG Corporate Risk Profile 2009*

(3) WHAT WE ARE FOCUSSING ON

Having made significant progress in recent years on a range of management and administrative issues, CCG is now able to turn its attention to priority initiatives that go to the heart of Coast Guard's ability to serve Canadians effectively. For the 2010-2013 Business Plan, CCG has simplified and reframed its priority action areas, focusing on significant matters that concern three critical success factors for the Coast Guard – Our People, Our Assets and Our Future.

In addition to the priorities discussed in this section, CCG manages a wide variety of day-to-day operations and activities, details of which can be found in Section 5.

Priority 1: Our People

A Qualified and Representative Workforce
Develop and Support People
Fair and Effective Management

Priority 2: Our Assets

Updating the Coast Guard's Long-term Fleet Renewal Plan
Procurement of New and Replacement Vessels
Economic Action Plan
Long-term Planning for Shore-based Infrastructure
Upgrade Vessel Traffic Information Systems

Priority 3: Our Future

e-Navigation
Strengthening Our Ability to Meet Obligations in the Arctic
Environmental Management Framework
Strategic Review
Research and Development Strategy

Priority 1: Our People

The strength of the Coast Guard is its dedicated and professional employees. Our people are what shape CCG into the organization it is today. In fact, investments in our workforce will continue and, over the next three years, CCG will focus on fostering a qualified and representative workforce, developing and supporting people, and demonstrating fair and effective management.

We are facing new challenges with the release of Budget 2010, but we remain committed to providing Canadians with high-level services. Priority 1 of this Business Plan provides an overview of our approach; further operational details can be found throughout this publication and in our Strategic Human Resources Plan.

A Qualified and Representative Workforce

Demographic shifts continue to be the biggest single influence on our workforce as increasing numbers of experienced CCG employees become eligible for retirement and the Canadian population continues to become more diversified.

2009-2010 Accomplishments

- Increased representation within the four employment equity groups by 6.4% from the previous year. For the first time in the past five years, 30% of the CCG workforce has self-identified as belonging to one of the four designated employment equity groups.
- Advertised CCG jobs under our own banner for external and internal employment opportunities.
- Finalized a Framework for Continuous Learning and Development.
- The Standard Organization was launched in May 2009 and the three-year transition has begun.
- Public Service Employee Survey results were assessed and communicated to employees and unions.
- An Essential Services Agreement for Ships' Crew was concluded with the Public Service Alliance of Canada which designates all Ships' Crew on duty on CCG vessels as providing essential services.

The five at-risk groups essential to operations (Ships' Officers, Ships' Crew, Radio Operators, Engineers, and Electronics Technologists) will continue to be of primary concern. Recruitment measures specific to each group are being implemented. Such measures include increasing the enrolment of officer-cadets at the Canadian Coast Guard College; creating a second national pool of Marine Communication and Traffic Services (MCTS) Officers; hiring more Electronics Technologists through the Marine Electronics Development Program, which allows participants to gain the knowledge and skills they need for working-level positions within CCG; creating an Engineering Workforce Solutions Action Plan, which includes an Engineering Professional Development Program; and implementing a Ships' Crew Certification Program beginning with the module for the 3rd Class Engineer certificate. Each of these measures is explained further in Section 5 of the *2010-2013 Business Plan and in the 2010-2013 Strategic Human Resources Plan.*

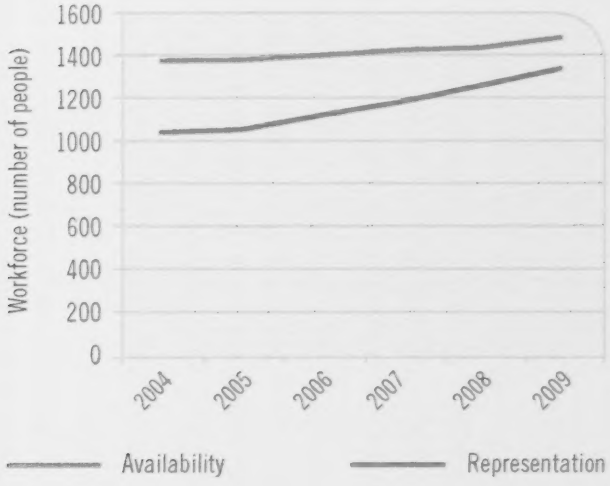
Table 1: Distribution by Occupational Group

Occupational Group	2009
Ships' Crew (SC)	1368
Ships' Officer (SO)	906
Marine Communication and Traffic Services Officers (RO)	362
Electronics Technologists (EL)	255
Engineering and Land Survey (EN)	79
Engineering Technologist (EG)	46
Clerical and Regulatory (CR)	231
General Technical (GT)	344
General Labour and Trades (GL)	277
Administrative Services (AS)	265
Executive (EX)	54
Lightkeepers (LI)	114
Student	18
Other	146
Total	**4465**

CCG recognizes that recruitment is an opportunity to create a workforce that is representative of the Canadian population. The *2008-2011 Department of Fisheries and Oceans Employment Equity Management Action Plan* (DFO EE MAP) is our guide to achieving a representative workforce; it identifies employment equity gaps, potential barriers to reducing gaps, and actions to take to address these barriers. The EE MAP Report Card, which was established and implemented within CCG in 2009, tracks the progress made toward reducing these barriers. We have eliminated barriers for employment equity (EE) candidates vying for seagoing positions, including removal of the second-language prerequisite for Officer Training Program candidates. We portray designated group members at sea in our promotional materials and offer a six-month

dispensation for all determinate employees to attain Marine Emergency Duty certification, thus encouraging them to pursue careers at sea. We have also created the Operational Women's Network to provide a forum for communication among seagoing women. For the first time in the past five years, 30% of our workforce has self-identified as being a member of one of the four designated EE groups. As demonstrated in Figure 2, overall representation has increased consistently for all four employment equity groups in the past five years; CCG will continue to work on improving the representation of all groups, with a particular focus on persons with disabilities and visible minorities.

Figure 2: Overall Employment Equity Representation vs. Availability (2004 - 2009)



In an effort to increase our representation, we will continue to refine our recruitment tools to reflect our specific needs. For example, in 2009, CCG was granted authority to advertise both external and internal employment opportunities under its own banner, rather than under the DFO banner. This will both increase CCG's visibility within the public service and help those outside government find CCG job postings. By becoming more visible to those outside CCG, we are able to reach a larger pool of candidates who are members of EE groups and who could therefore help to improve our overall representation.

The Careers page of the CCG website has been enhanced to profile the five at-risk groups. CCG information kits for recruitment, which illustrate the wide range of exciting job opportunities at the Agency, are being finalized and will be distributed in each region. These kits will also provide tips on navigating the application process and will be used at career fairs and other outreach events. This year, we will continue our participation in the Partners for Workplace Inclusion Program in Vancouver, British Columbia, and in St. John's, Newfoundland.

In 2010-2011, we will continue to enhance our capacity to ensure that qualified recruits and employees who belong to an EE group fill vacancies within our organization. Since 2005, our overall EE representation has increased by an average of five percent per year. In 2010-2011, CCG will aim to achieve a seven percent increase of its overall EE representation by continuing to hire from EE groups and by promoting self-identification to all employees.

Commitment	In response to...	Lead
2010-2011		
Develop outreach material targeting persons with disabilities to allow them to envisage work at sea.	*2008-2011 DFO EE MAP*	DG, Integrated Business Management Services (IBMS)
Distribute outreach material at regional career and outreach events, targeting secondary and College students, emphasizing the Agency's need for a diverse workforce.	*2008-2011 DFO EE MAP*	Executive Director (ED), National Labour Force Renewal Directorate (NLFRD)
Continue to participate in the Partners for Workplace Inclusion Program in Vancouver, British Columbia, and in St. John's, Newfoundland.	*2008-2011 DFO EE MAP*	AC, Pacific AC, NL
Increase overall employment equity representation by 7%.	*2008-2011 DFO EE MAP*	CCG Management Board Members

Develop and Support People

Investments in people are essential if CCG is to deliver programs and services of the highest standard. Since the launch of the Performance Review System (PRS) in 2008-2009, CCG has continued its efforts to monitor and promote regular performance reviews and the development of learning plans. Individual Learning Plans present an excellent opportunity for CCG managers and employees to have a discussion centred on organizational objectives, career management, and learning needs as they link to the performance objectives.

Training takes place throughout the organization, with core national educational programs provided by the Canadian Coast Guard College. CCG offers training programs that allow both new and existing employees to advance within the ranks. In 2010-2011, the Canadian Coast Guard will refine its Orientation Program to help new employees integrate more quickly into the organization. Furthermore, along with the Engineering Community Workforce Solutions Action Plan and the Ships' Crew Certification Program (see page 63), Fleet management encourages seagoing personnel to gain management experience through rotational shore-based assignments. The national Leadership Development Pilot Program has helped participants develop leadership skills and gain a broader knowledge of the organization, and in 2010-2011 we will evaluate this pilot program to determine next steps. CCG will also put in place a refresher course for existing MCTS Officers.

In an effort to provide employees with opportunities to gain valuable experience and corporate knowledge, CCG uses a variety of tools such as short-term acting appointments. These tools help prepare employees to participate in competitions for advancement and will ultimately aid in the succession planning of CCG's workforce.

In 2009-2010, Coast Guard established dedicated budgets for training and development in each region and for each function at national Headquarters. This year, CCG will implement a nationally consistent automated system to capture training needs identification, data collection and reporting. CCG will also review training standards and performance measures through benchmarking with similar organizations.

In addition, CCG will continue to encourage the use of cost-neutral training activities such as job shadowing, job exchange, mentoring and on-line courses.

Improving our capacity in both official languages continues to be a priority. Although the second-language prerequisite no longer applies to candidates enrolling in the Officer Training Program at the CCG College, we will reinforce our existing second-language training capacity at the College to ensure that graduating officer-cadets meet official language requirements. Fair, transparent and equitable management of language training must be balanced against CCG's operational and financial constraints. In 2010-2011, we will implement a structured approach to dealing with requests for developmental language training. In 2009, the highest percentage of employees in CCG history met the linguistic profile of their positions (96%), demonstrating that the Agency's efforts to recruit bilingual candidates and provide language training are yielding positive results.

Commitment	In response to...	Lead
2010-2011		
Launch a more structured CCG Orientation Program for all new employees.	PSES	ED, NLFRD
Evaluate the national Leadership Development Pilot Program and determine next steps.	PSES	AC, NL
Implement a nationally consistent automated system to capture training needs identification, data collection and reporting.	PSES	ED, NLFRD
Implement a structured approach to dealing with requests for developmental language training.	PSES	ED, NLFRD; CCG Management Board Members

Fair and Effective Management

CCG will continue to focus on fair and effective management practices. Staffing practices will continue to improve by relying more heavily on collective staffing and pools of qualified candidates and by reducing the use of temporary employment measures.

In response to the 2005 Public Service Employee Survey (PSES), the 2006 A-Base Review and the 2007 Report of the Auditor General, CCG developed a model for

a Standard Organization (SO). The SO is essential to ensuring that CCG manages its business both fairly and effectively. The launch of the SO in May 2009 was a significant step for CCG, as it will enable more consistent service delivery, resolve classification anomalies, and ensure the appropriate distribution of resources across the Agency. Implementation of the SO is targeted for completion by spring 2012. CCG will continue to develop tools as required, monitor implementation, and measure and communicate progress with its employees and their unions.

In 2009-2010, Coast Guard assessed the results of the 2008 PSES and communicated its findings to employees and unions. Three areas of strength and three areas for improvement were identified. The areas of strength are job satisfaction, having the right talent in the right place at the right time, and positive working relationships and effective communication. The three areas that need improvement are executive leadership, effective and value-based staffing, and career opportunities and development.

Through consultations with employees, managers, and unions, CCG has forged a collaborative way forward with a focus on increasing employee engagement.

In the coming years, Coast Guard will examine creative ways to increase PSES response rates among its seagoing personnel, thus helping us continue to achieve excellence in our workplace and in our service to Canadians.

CCG will continue to promote the Performance Review System by monitoring completion rates for shore-based and seagoing personnel. This will ensure ongoing dialogue between managers and employees concerning organizational and individual objectives.

Commitment	In response to...	Lead
2010-2011		
Continue transition to Standard Organization.	OAG A-Base Review PSES	CCG Management Board Members

Commissioner's Commendation Awarded to Mark Chin-Yee, Wade Stagg, Shauna Akerman, and Terri-Lynn Broomfield

Mark Chin-Yee, the Regional Director for Integrated Technical Services in Maritimes Region, uses his influence to make CCG's workforce more diverse and accepting. He works with Maritimes's Regional Diversity Advisory Committee and has taken this role much further by ensuring the establishment of networks for women and persons with disabilities.

Left to right: Nancy Hurlburt (AC, Maritimes), Mark Chin-Yee.

Wade Stagg, Shauna Akerman, and Terri-Lynn Broomfield have worked diligently to increase the representation of women and Aboriginals in the fleet and to promote seagoing careers in the Newfoundland Region. The Marine Superintendent's Group has been awarded the commendation for using innovative approaches in HR management to ensure that the fleet has a representative workforce with the skills and experience needed now and in the future.

Left to right: John Butler (AC, NL), Shauna Akerman, Wade Stagg, Terri-Lynn Broomfield.

Priority 2: Our Assets

As an operational agency, the Coast Guard relies heavily upon its fleet and shore-side assets to deliver maritime programs and services critical to Canadians.

CCG manages a substantial base of physical and technical assets with a replacement value of well over $11 billion. These assets include a fleet of small, medium, and large vessels and helicopters, land- and water-based assets other than vessels such as navigation aids and communication towers, a fleet of land-based vehicles, cranes and forklifts, program-specific information systems, and assets and facilities used in support of CCG's training needs at the Coast Guard College.

Although these assets are critical to the delivery of our programs and services, they are generally old, having an historic cost of a little over $2 billion. The ages of many of our fleet and shore-based assets now exceed their original design lives. Maintaining and replacing these assets is therefore vital to ensuring that CCG is able to meet current and anticipated future service demands.

The activities and initiatives outlined below are part of an integrated investment planning process designed to renew and improve the condition of Coast Guard's capital assets. This process will have direct and positive effects on the quality and extent of CCG service delivery and on our ability to control the related operational and maintenance costs.

2009-2010 Accomplishments

Procurement of New and Replacement Vessels

- Delivered the CCGS *Kelso*, a Specialty Vessel, as part of Fleet Renewal.
- Awarded the construction contract for 9 Mid-shore Patrol Vessels (MSPV).

Economic Action Plan

- Awarded a contract to construct five 47-foot Search and Rescue (SAR) Lifeboats.
- Awarded contracts for vessel life extensions for the CCGS *Limnos*, CCGS *Tracy*, and the CCGS *Barlett*.
- Awarded contracts for three Near-shore Fisheries Science Vessels.
- Awarded contracts for the purchase of 51 small craft of the 60 small craft to be acquired, of which 15 have been delivered.

Upgrade Vessel Traffic Information Systems

- Successfully upgraded the Vessel Traffic Management Information Systems/Information System on Marine Navigation (VTMIS/INNAV) in MCTS Centres and installed an INNAV technical training platform at the CCG College.

Updating the Coast Guard's Long-term Fleet Renewal Plan

The Fleet Renewal Plan (FRP) addresses the need to renew the CCG fleet of vessels and helicopters over 30 years so that CCG can continue to meet the current and future on-water requirements of the Government of Canada. The Plan envisions a national civilian fleet of vessels and helicopters built along a class structure, capable of multi-tasking, more efficient to operate and maintain, and better able to respond to changing priorities, environmental conditions and program requirements.

Revisions to the Fleet Renewal Plan were substantially completed in 2009-2010, in accordance with the commitment our 2009-2012 CCG Business Plan. However, emerging government priorities have prompted Coast Guard to carry this commitment over to 2010-2011, in line with government direction.

Commitment	Lead
2010-2011	
Continue to develop the Fleet Renewal Plan in line with government direction.	DG, Fleet

Procurement of New and Replacement Vessels

To ensure the successful delivery of vessels in support of Fleet Renewal, CCG has put in place an organization and processes dedicated to delivering complex procurement projects. Throughout the Fleet Renewal planning and procurement processes, CCG will seek strategic advice and independent expert counsel and will consult with central agencies to ensure adherence to Treasury Board policies and requirements. Internal controls and challenge functions targeting project scope, expenditure management and reporting will be enhanced through the existing Major Crown Projects (MCP) Directorate, a centre of excellence for the management of Fleet Renewal projects, and the newly created position of Deputy Commissioner, Procurement. This governance model aligns CCG with other departments and supports the government's commitment to the Canadian shipbuilding industry through a long-term approach to federal procurement.

CCG has been funded in recent budgets to acquire up to 14 new large vessels at a cost of $1.4 billion:

- 9 Mid-shore Patrol Vessels (MSPV);
- 3 Offshore Fisheries Science Vessels (OFSV);
- 1 Offshore Oceanographic Science Vessel (OOSV); and
- 1 Polar Icebreaker.

In September 2009, a contract was awarded to Irving Shipbuilding for the construction of nine MSPV.

Budget 2010 has also provided further funding of $27.3 million for the procurement of 1 Air Cushion Vehicle.

Mid-shore Patrol Vessels

Five of the nine Mid-shore Patrol Vessels will be used primarily to support the Department of Fisheries and Oceans Conservation and Protection program in the Maritimes, Quebec, and Pacific Regions. The other four vessels will be used in a joint program with the Royal Canadian Mounted Police to enhance maritime security along the Great Lakes - St. Lawrence Seaway system. Detailed construction verification is nearing completion and fabrication of the first of the nine Mid-Shore Patrol Vessels is scheduled to begin in the first half of 2010-2011. All nine vessels will be delivered by 2013.

Commitment	In response to...	Lead
2010-2011		
Begin construction of the first of nine Mid-shore Patrol Vessels.	AG A-Base	DG, MCP
2011-2012		
Deliver the first three Mid-Shore Patrol Vessels.	AG A-Base	DG, MCP
2012-2013		
Deliver the remaining six Mid-shore Patrol Vessels.	AG A-Base	DG, MCP

Offshore Fisheries Science Vessels

The three OFSV will replace aging Coast Guard ships on the east and west coasts of Canada. They will provide a platform from which critical scientific research and ecosystem-based management can be performed. The OFSV project is currently in the definition phase, and all vessels are expected to be delivered by 2015.

During 2009-2010, the concept design work was finalized, and the Work Scope Definition and the associated Design Instructions and Guidance were developed. A contract will be issued for the development of the detailed design and construction specifications package during 2010-2011.

Commitment	In response to...	Lead
2010-2011		
Issue a competitive Request for Proposal, and award a contract to design three Offshore Fisheries Science Vessels.	AG A-Base	DG, MCP
2011-2012		
Develop the Effective Project Approval package for submission to Treasury Board.		DG, MCP
Award the contract to build the Offshore Fisheries Science Vessels.		DG, MCP
2012-2013		
Manage the construction of the Offshore Fisheries Science Vessels.		DG, MCP

Offshore Oceanographic Science Vessel

The Offshore Oceanographic Science Vessel (OOSV) project will acquire a replacement vessel for the Canadian Coast Guard's largest science vessel: CCGS *Hudson*, built in 1963. Its replacement is critical to fulfilling the Department's science mandate, as well as those of other government departments and agencies. The OOSV project is currently in the definition phase and delivery of the vessel is planned for 2013. During 2009-2010, the concept design work was finalized and the Work Scope Definition and the associated Design Instructions and Guidance were developed. A contract will be issued for the development of the detailed design and construction specifications during 2010-2011.

Commitment	In response to...	Lead
2010-2011		
Issue a competitive Request for Proposal, and award a contract to design an Offshore Oceanographic Science Vessel.	AG A-Base	DG, MCP
2011-2012		
Develop the Effective Project Approval package for submission to Treasury Board.		DG, MCP
Award the contract to build the Offshore Oceanographic Science Vessel.	AG A-Base	DG, MCP
2012-2013		
Manage the construction of the Offshore Oceanographic Science Vessel.	AG A-Base	DG, MCP

Polar Icebreaker

A new Polar Icebreaker, CCGS *John G. Diefenbaker*, will be designed and built to enter into service in 2017. The new Polar Icebreaker will replace the Coast Guard's largest and most capable heavy icebreaker, CCGS *Louis S. St-Laurent*, which is nearing the end of its useful life and is scheduled for decommissioning in 2017.

In 2009-2010, following Preliminary Project Approval by Treasury Board, the Polar Icebreaker project activities included completion of the mission profile, stakeholder consultations and validation of operational requirements. Currently planned for 2010-2011 is the development of a conceptual design, to be followed by the detailed design work.

Commitment	In response to...	Lead
2010-2011		
Develop the Operational Requirements and the Conceptual Design for the new Polar Icebreaker.	AG A-Base	DG, MCP
2011-2012		
Award the contract for the design of the Polar Icebreaker.	AG A-Base	DG, MCP
2012-2013		
Conduct the Final Design Review.		DG, MCP

Air Cushion Vehicle

The recently announced new Air Cushion Vehicle (ACV) will replace CCGS *Penac* at the Canadian Coast Guard Sea Island Hovercraft Base in Richmond, British Columbia. It will provide for ongoing search and rescue coverage in the area, allowing CCG to continue fulfilling its mandate and maintain current levels of service. A contract for the construction of the ACV will be awarded in 2010-2011, with delivery expected in late 2012.

Commitment	In response to...	Lead
2010-2011		
Award the contract for construction of ACV.	AG A-Base	DG, MCP
2011-2012		
Manage construction of the ACV.	AG A-Base	DG, MCP
2012-2013		
Accept delivery of the ACV.	AG A-Base	DG, MCP

Economic Action Plan

In Budget 2009, the Government of Canada provided the Department of Fisheries and Oceans with $392 million in direct funding to build and repair departmental assets, of which $175 million is related to the acquisition and repair of vessels for the CCG fleet. As one of the six programs within DFO to receive funding from the Economic Action Plan (EAP), CCG has responded by advancing vessel procurement projects and maintenance activities to enhance or sustain CCG's capability to meet current and future on-water needs of the Government of Canada. The projects under the EAP include the construction and commissioning of five 47-foot Search and Rescue (SAR) Lifeboats, vessel life extensions for a number of CCG vessels, the purchase of environmental barges and small crafts, as well as additional refit and maintenance activities on vessels. In addition to providing CCG with needed funding and improving asset condition, the work also creates or maintains jobs within the construction and shipbuilding communities. The work began in 2009 and will be completed by March 31, 2011.

In 2009-2010, the Government of Canada awarded a contract to the Victoria Shipyards Limited to construct five 47-foot SAR Lifeboats. Contracts were also awarded to conduct vessel life extensions for CCGS *Limnos* ($7 million contract was awarded to Heddle Marine in Burlington, Ontario) and CCGS *Tracy* ($6.9 million contract to Verreault Navigation in Les Méchins, Québec). As for the contract for the vessel life extension of the CCGS *Bartlett*, a Phase I contract of $1.3 million to conduct preliminary work was awarded to Allied Shipyards of North Vancouver, BC; and a contract for Phase II, the main vessel life extension work, in the amount of $15.5 million was also awarded to Allied Shipyards in October 2009. The vessel life extension for the CCGS *Bartlett* was completed in May 2010.

The contracts for vessel design of two 22-metre and one 25-metre Near-shore Fisheries Science Vessels were awarded to Robert Allen Limited, Vancouver. The construction work will be conducted in 2010-2011. The design for the environmental response barges has been delivered by Robert Allen Limited and a construction contract for 30 barges is underway. The environmental response barges will be constructed and delivered during 2010-2011. Contracts have been awarded for 51 of the 60 small craft to be acquired, of which 15 have been delivered. All EAP refit activities planned for 2009-2010 have been completed.

Commitment	Lead
2010-2011	
Approve and accept delivery of the five 47-foot SAR Lifeboats.	DG, MCP
Award the contract and complete vessel life extension for: • CCGS *Cape Roger* • CCGS *Tanu*	DG, ITS
Approve and accept delivery of two 22-metre Near-Shore Fisheries Science Vessels and one 25-metre Near-shore Fisheries Science Vessel.	DG, ITS
Plan and complete $19 million of additional refit activities (representing work on 35 vessels).	DG, ITS
Approve and accept delivery of 30 replacement environmental response barges.	DG, ITS
Purchase and accept the remaining small craft, for a total of 60.	DG, ITS

Long-term Planning for Shore-based Infrastructure

The CCG manages $1.6 billion in shore-based assets in support of the Aids to Navigation and Marine Communication and Traffic Services programs. Although short- to medium-term planning for shore-based infrastructure is incorporated into the CCG Integrated Investment Plan, the value and importance of these assets also justify creation of a long-term plan.

The Long-term Plan for Shore-based Infrastructure will present a 15-year plan for the capital investments required to ensure the reliability and availability of CCG's shore-based assets. The Long-term Plan will address concerns regarding CCG's ability to provide information on the condition of aids to navigation assets and infrastructure and its capacity to plan and prioritize maintenance, replacement and divestiture activities, as identified in the DFO and CCG corporate risk profiles.

Asset Class Plans, and the related Asset Condition Reports, are under development for both Aids to Navigation and Marine Communication and Traffic Services. They provide recommendations for the life-cycle management of assets, based on the age and expected service life of the asset base, current asset condition and recommended maintenance practices. These Asset Class Plans and Asset Condition Reports will be the foundation for the Long-term Plan.

Commitment	Lead
2010-2011	
Deliver an Asset Condition Report (high level assessment of the asset base) for Aids to Navigation.	DG, ITS
Deliver an Asset Condition Report (high level assessment of the asset base) for MCTS.	DG, ITS
Deliver an Asset Class Plan for Aids to Navigation.	DG, ITS
Deliver an Asset Class Plan for MCTS.	DG, ITS
2011-2012	
Publish the Long-term Plan for Shore-based Infrastructure.	DG, ITS DG, MS

Upgrade Vessel Traffic Information Systems

Coast Guard (CG) currently operates two separate systems in Canada for vessel traffic management however CG is moving towards a single national vessel traffic management information system (VTMIS). The two systems are the Vessel Traffic Operator Support System (VTOSS), used on the West Coast, and the Information System on Marine Navigation (INNAV), used for the rest of Canada. In 2009-2010, INNAV was upgraded to provide crucial functionality and interface with the Automatic Identification System (AIS). The upgraded INNAV was deployed in April 2009 to all MCTS Centres in Eastern Canada. This INNAV operational system was then further upgraded in March 2010 to incorporate those operating functionality that are required to enable effective management of vessel traffic on the West Coast. Deploying the most recent upgrade of INNAV and installing the required new equipment in the MCTS Centres in the Pacific Region will enable the decommissioning of VTOSS in 2010-2011. This will give CCG the same operational system for vessel traffic management across Canada. An INNAV technical training platform was also installed at the CCG College to allow for training of ITS technical support personnel.

Commitment	Lead
2010-2011	
Complete operational training on the upgraded VTMIS-INNAV on the West Coast.	DG, ITS DG, MS AC, Pacific
Commission VTMIS-INNAV on the West Coast, decommission VTOSS, and dispose of old equipment.	DG, ITS DG, MS AC, Pacific

Commissioner's Commendations Awarded to William Conway and the Mamilossa Team

William Conway was recognized for the difficult task of being the Newfoundland and Labrador Region Integrated Technical Services lead for the deployment of the CCGS *Terry Fox* and the simultaneous project management of the CCGS *Terry Fox* and CCGS *Henry Larsen* refits. His efforts in planning both the technical and logistical support for the vessels from a marine engineering perspective resulted in a seamless transition. The two vessels were refitted on time and successfully met their Arctic commitments.

Left to right: John Butler (AC, NL), William Conway.

The Mamilossa project team, consisting of five team members, was responsible for representing Canadian Coast Guard's interests in the construction, testing and delivery of a AP1-88/400 type hovercraft (air cushion vehicle) to be deployed in the Quebec Region. The project team was required to travel to England to attend Technical and Production meetings and to monitor the construction of the craft over a 30 month build and delivery period.

Following successful trials in England, the craft was provisionally accepted in England on February 10, 2009; shipped to Canada; and accepted in Trois-Rivières on March 12, 2009. Thanks to the project team's efforts, the hovercraft was delivered on time and within budget.

Left to right: René Grenier (Deputy Commissioner, Operations), Frank Jess, Daniel L'Heureux, Charlene Whittaker for Wayne Cottle, Yves Marchand, Darlene Lefebvre, George Da Pont (Commissioner).

Priority 3: Our Future

Recent external developments related to the economy, national security, technology, and climate change are reshaping Coast Guard's business and operating environment. These factors, when combined with evolving government priorities and our Agency's own focus on improving service delivery, demand that we in Coast Guard think strategically with long-term goals in mind. This thinking is essential to providing the best advice possible on what our future direction is, and on what CCG will need to look like in the future. By virtue of our growing and diverse workforce, unique capital assets, the vast area we service, and those with whom we do business, Coast Guard works with communities, workers, and organizations across the country to build Canada's economic future.

2009-2010 Accomplishments

e-Navigation
- Conducted a comprehensive e-Navigation user needs survey.

Strengthening Our Ability to Meet Obligations in the Arctic
- Began transmissions, on a test basis, of the navigational warning system for two Navigational Areas (NAVAREAs) in the Arctic.
- Developed and validated operational requirements for the new Polar Icebreaker.

Environmental Management Framework
- Completed a draft version of the Environmental Management Framework.

Research and Development Strategy
- Drafted an innovation strategy for Research and Development.

Our crucial role in this context is to secure stable, renewed capabilities to deliver reliable and cost-effective maritime services within our means. These services must meet the current needs of Canadians and clients and be available for the challenges and opportunities that lie before us, such as those in the Arctic. By enabling the progress of others in the broader community, CCG can strengthen both Canada and its own role as a national institution. And while Coast Guard gives priority to meeting the service expectations of Canadians, it must also attend to its own renewal for the future through sustained focus on its work force and capital asset base.

Our *Vision, Mission and Values* statement (page 5) is helping us to define our future directions, such as the development of an Arctic Vision to support the Government's Northern Strategy, an Environmental Management Framework to improve environmental outcomes related to our operations, and leadership across government on e-Navigation matters. A planned Strategic Review of activities and expenditures could provide CCG with an opportunity to better manage spending, modernize and simplify internal operations, and transform the way we do business to achieve better results for Canadians. We will also be taking a fresh look at our Research and Development Strategy and our funding options as part of our commitment to develop a CCG-wide culture of innovation.

e-Navigation

The International Maritime Organization (IMO) expects e-Navigation to be implemented world-wide in the next 10 to 15 years. Through its implementation of several pilot projects such as MARINFO in the Quebec region and AVADEPTH in Pacific region, CCG is well positioned to take a leadership role in e-Navigation both domestically and internationally, to be at the forefront of its implementation, and to influence international standards.

Implementing e-Navigation in a coordinated and organized manner in Canada, that involves collaborating with multiple federal departments and the shipping industry, will significantly enhance safety, have positive economic effects and increase environmental protection.

What is e-Navigation?

As defined by the International Maritime Organization (IMO), e-Navigation is:

The harmonised collection, integration, exchange and presentation of maritime information onboard and ashore by electronic means to enhance berth-to-berth navigation and related services, for safety and security at sea and protection of the marine environment.

In 2008-2009, CCG completed an internal strategic vision strategy for e-Navigation. The vision/strategy is based on our participation in the e-Navigation committee of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), on the IMO e-Navigation implementation strategy, and on a national workshop involving key federal players. In 2009-2010, CCG conducted a comprehensive user needs survey, based on an international survey developed jointly by Canada and Germany, with input from the United

States. The survey was conducted nationally through face-to-face interviews and supported by an online version to maximize the number of participants. The results of this survey will be critical to determining national priorities and facilitating national and international implementation.

Keeping this momentum, for 2010-2011, CCG intends to broaden the participation of other key federal departments in e-Navigation – Transport Canada, Environment Canada and the Canadian Hydrographic Service, for example – and to work with them to develop a federal vision/strategy for e-Navigation as well as a high-level implementation plan. In parallel, CCG will initiate work to review its various information systems with a view to ensuring that future developments take into account e-Navigation requirements.

Commitment	In response to...	Lead
2010-2011		
Develop a federal vision/strategy and a high-level implementation plan for e-Navigation, in consultation with other government departments.	AG	DG, MS

Strengthening Our Ability to Meet Obligations in the Arctic

Retreating polar ice, global demand for resources, and prospects of year-round shipping are creating new challenges and opportunities for the North. DFO/CCG activities across all sectors play a key role in Northern commerce, safety, and security; sustainable resource development; our understanding and protection of Arctic ecosystems and habitats; and the facilitations of Northerners' quest for greater economic prosperity. The Canadian Coast Guard acts as a platform for many of these activities, as well as undertaking critical roles in the Arctic under its own mandate.

CCG has a long and proud history of providing service in the Arctic and to Northern Canadians. Every year, from late June to early November, Coast Guard deploys one light, two heavy, and three medium icebreakers to the Arctic. In addition to the officers and crew that operate these icebreakers, close to 70 other CCG employees are assigned to Northern operations on a seasonal basis.

Our Arctic activities, many of which are delivered in partnership with others, include:

- Escorting commercial ships through ice to ensure access to Northern communities;
- Supporting scientific endeavours such as hydrographic charting and marine science;
- Maintaining some aids to navigation in Canadian Arctic waterways;
- Delivering primary response capability to respond to pollution incidents north of 60;
- Providing maritime search and rescue services;
- Providing a safety radio communication service from two seasonal Arctic Marine Communication and Traffic Services Centres: Inuvik in the west and Iqaluit in the east;
- Broadcasting weather and ice information and navigational warnings;
- Delivering food, cargo, and fuel to remote sites where commercial services are unavailable;
- Conducting joint exercises with international partners and the Department of National Defence (Operation NANOOK, for example); and
- Developing an improved awareness of the Arctic maritime domain through vessel identification and tracking security initiatives.

The Canadian Coast Guard is one of the most identifiable symbols of a Canadian presence, reinforcing both Canadian Arctic sovereignty through the presence of Coast Guard personnel and assets in Canada's North, and CCG's specific roles in Northern marine shipping. As well, alongside the activities of other parts of DFO, the Coast Guard advances the goals of the government's Northern Strategy, and keeps Arctic waterways open, safe, and clean. A number of CCG initiatives are underway:

- Budget 2007 provided the Coast Guard with $2.2 million in funding over three years to enhance Canada's capacity to respond to marine oil spills that occur in the Arctic. In 2009-2010, Coast Guard completed the acquisition of the necessary environmental response equipment packages and started to distribute them in the North (see page 54).
- Also in 2007, the International Maritime Organization (IMO) confirmed Canada in its role as international coordinator and issuing service for navigational warnings for two Navigational Areas (NAVAREAs) in the Arctic. NAVAREAS are established geographical areas within which the broadcast of navigational warnings to mariners and communities is coordinated. In 2009-2010, Coast Guard finalized the planning of this international service. With Budget 2010 providing the Coast

Guard with $2.2 million, over two years, we plan to start the initial testing phase of the service in the summer of 2010. We will launch the NAVAREA transmission service in 2011-2012 (see page 42).

- With the implementation of the Long Range Identification and Tracking (LRIT) System, CCG is currently the only significant collector of vessel traffic information in the Arctic. Through LRIT, CCG is capable of tracking vessels north of 84 degrees. This unique capacity positions CCG as an essential contributor to Arctic marine safety and security.
- In 2008, the government made the decision to replace Coast Guard's most capable Arctic icebreaker, CCGS *Louis S. St-Laurent*, built in 1969, and to decommission it in 2017. Budget 2008 provided $720 million for the procurement of a new Polar Icebreaker, which is being designed with greater icebreaking capabilities than the one it is replacing, allowing it to operate for longer periods in the Arctic. This new vessel will allow the Coast Guard to more efficiently continue its work to strengthen and protect Canada's sovereignty in the Arctic (see page 25).

In support of the government's current and future Northern Strategy, and as part of ensuring a strategic approach to its own activities, the Coast Guard is formalizing an integrated approach to its roles in the Arctic. A strategic priority for DFO and CCG in 2010-2011 is developing integrated Arctic strategies for DFO and the Coast Guard, while ensuring continued implementation of current Northern initiatives. This will enable both DFO and CCG to better fulfil their important roles in the government-wide Northern priority, and better meet obligations to oceans users, Northerners, and international partners and stakeholders.

Commitment	Lead
2010-2011	
Establish Arctic visions and integrated short-run and long-run objectives and priorities for DFO and CCG.	Executive Director, Arctic Strategies

Environmental Management Framework

As part of DFO's 2007-2009 Sustainable Development Strategy (SDS), CCG made specific, voluntary commitments to improve environmental outcomes for Canadians by reducing its own environmental footprint and developing a health, safety and environmental management system. Through the use of standards and specifications, Coast Guard will take the lead in the green acquisition and operation of both marine and shore-side infrastructure.

Specifically, CCG has committed to:

- Developing an Environmental Management Framework for internal operations that will establish the principles and considerations necessary to begin addressing requirements for reducing air emissions (including greenhouse gas), as well as other greening of government initiatives;
- Developing a set of industry-leading, environmental and sustainability standards and specifications that incorporate modern environmental practices and technology, as well as national and international best practices, into the procurement of new CCG assets; and
- Leveraging the experience and knowledge of CCG and other organizations to conduct a baseline survey of the physical assets and operations of CCG to establish a benchmark of their environmental sustainability and eco-efficiency.

In addition, in order to put into practice DFO's Occupational Health and Safety (OHS) and environmental programs, CCG has committed to developing and implementing a Health, Safety and Environmental (HSE) Compliance System for shore-side equipment, facilities, and operations. This involves developing and implementing standard practices and procedures, giving CCG the ability to demonstrate compliance with OHS and environmental regulations.

In 2009-2010, a draft Environmental Management Framework was completed.

Commitment	In response to...	Lead
2010-2011		
Develop the HSE Compliance System framework.		DG, ITS Deputy Commissioner, Operations
Develop a guiding framework evaluation matrix that builds on the Environmental Management Framework.	SDS	DG, ITS
Develop procedures to matrix activities supporting CCG green procurement policies and possibly refits as well as the construction of new ships.	SDS	DG, ITS
2011-2012		
Develop a set of industry-leading, environmental and sustainability standards and specifications.	SDS	DG, ITS with the support of the DG, MCP
Conduct a baseline survey of CCG's physical assets and operations to establish a benchmark of their environmental sustainability and eco-efficiency.	SDS	DG, ITS

Strategic Review

The Government of Canada introduced a new expenditure management system in 2007 as part of an ongoing commitment to better manage government spending. This system ensures value for money for all government spending. A key pillar of this system is Strategic Review (SR), the assessment on a four-year cycle of all direct program spending. Fisheries and Oceans (DFO), including Coast Guard, was asked to conduct a Strategic Review in 2010.

In alignment with the priorities set out in the recent Speech from the Throne and Budget 2010, our Department's Strategic Review will aim to:

- Increase efficiency and effectiveness by examining ways the Department can improve or modernize the delivery of its programs and services;
- Enhance our focus on core roles by ensuring that all departmental programs and services are delivered by those best positioned to do so; and
- Meet the priorities of Canadians by better aligning departmental programs and services with the needs of Canadians.

Strategic Review is an opportunity for CCG to refine its common vision of the future. We are well positioned to undertake this review as a result of our Levels of Service (LOS) review, the e-Navigation user needs surveys, the SAR Needs Analysis, and our work on the Strategic Program Framework, which we completed in 2009. We will build on this knowledge to ensure a successful review of our programs and spending in 2010-2011.

Our efforts to date to prepare the organization for SR have been significant, and they will continue through to Fall 2010. Coordination within DFO will be essential to preparing the Department's recommendations for consideration in the government's 2011 budget planning processes.

Commitment	Lead
2010-2011	
Conduct CCG's Strategic Review, as part of the larger DFO SR process.	DG, MS

Research and Development Strategy

The Coast Guard is committed to developing a CCG-wide culture of innovation. Through the overarching umbrella of a CCG Innovation Strategy, we will ensure our culture, management, and processes foster innovation, creative thinking, and knowledge sharing. The Coast Guard recognizes Research and Development (R&D) and innovation as mutually reinforcing. Recent project successes include work related to Oil Dispersion in Ice-Encumbered Waters and the development of the Under Keel Clearance prediction model.

In 2009-2010, with the introduction of a new mission statement, Coast Guard focused on starting the development of its Innovation Strategy by establishing a collaborative ginger[1] group. This interregional and interprogram team completed the analysis necessary to present realistic recommendations on a way forward to CCG's Management Board. These recommendations, focusing on the three pillars of Leadership, Culture, and the R&D Program, are aimed at invoking innovative thinking in all facets of Coast Guard's operational, technical, and business functions. The results will benefit all of CCG.

[1] A ginger group is a formal or informal grouping of people within a larger organization that actively works for more radical change to the policies, practices, or office holders of the organization while still supporting the goals of the organization.

CCG's focus in 2010-2011 will be on creating a CCG R&D Strategy to ensure supportive and stable R&D services. This will include using streamlined processes for the approval, funding, and reporting of CCG R&D projects, as well as integrating R&D planning into Coast Guard's integrated planning cycle. It is anticipated that this will support innovation in a variety of areas, such as e-Navigation. This initiative was identified in the 2009-2012 Coast Guard Business Plan as a way of improving the way we do business both operationally and strategically. In developing the R&D Strategy, we will look at various internal funding options while building on Coast Guard's recognition of the importance of using partnerships to leverage R&D investment.

For details on CCG 2010-2011 R&D projects, see Annex B.

Commitment	Lead
2010-2011	
Develop a CCG strategy for Research and Development.	DG, MS
2011-2012	
Launch the new R&D Strategy for CCG.	DG, MS

(4) REGIONAL PERSPECTIVE

Overview

CCG operates in five regions. Each CCG region is led by an Assistant Commissioner, who reports to the Commissioner and is responsible for directing the day-to-day delivery of CCG programs and services in that region. While CCG plans at a national level to ensure consistency in the design and delivery of programs, the regions are responsible for program delivery.

For more information about our regions, please refer to their websites:

Newfoundland and Labrador:
www.ccg-gcc.gc.ca/e0003320

Maritimes:
www.ccg-gcc.gc.ca/e0003796

Quebec:
www.marinfo.gc.ca/en/general/accueil.asp

Central and Arctic:
www.ccg-gcc.gc.ca/eng/Central_Arctic/Home

Pacific:
www.ccg-gcc.gc.ca/eng/CCG/Pacific

While all five regions deliver the core CCG programs, the focus in each region is different, depending on climate, geography, and client needs. For example:

- **Newfoundland and Labrador Region** has the largest oil-handling port in Canada and through its rapidly expanding and lucrative offshore oil industry, millions of tons of potentially polluting cargo and vessel fuel transit the oceans each year. Fishing remains a viable concern while hydroelectric power in Labrador is an emerging high-stake industry. Other developments in Labrador (highway, mining) may place future demands on CCG services.
- **Maritimes Region** has the world's highest tides (Bay of Fundy), the largest fishing industry in Canada and the country's first Liquefied Natural Gas (LNG) terminal. Since Chedabucto Bay boasts the second-highest cargo traffic in the country, the vast majority of which is petroleum products, the risk of a major oil spill remains very high. Unique to the Region is the operation of the Canso Canal by CCG and our responsibility for Sable Island under the *Canada Shipping Act*.
- **Quebec Region** has four of Canada's six main ports located within the it's jurisdiction, and contributes to shipping competitiveness and to economic prosperity by ensuring safe and accessible navigation from the Gulf of St. Lawrence to Montreal. Because of the geographical location, the St. Lawrence River is a strategic trade route to the core of the North American continent. The safe movement of vessels in a narrow and meandering channel, such as the St. Lawrence River, poses a considerable challenge in terms of safety and environmental protection. This is even more evident in regard to the 32 million tonnes of chemicals and petroleum products in transit yearly. Furthermore, navigation on the St. Lawrence River is difficult because of the following factors: relatively shallow, significant tidal action, variable currents, unpredictable weather conditions, and the river's 1,200 kilometres is ice covered from December to April.
- **Central and Arctic Region**'s partnership with the United States Coast Guard in the delivery of the icebreaking and aids to navigation programs on the Great Lakes provides the marine industry with a fully integrated, bi-national service. The region also provides support to Eastern Arctic sealift activities for the Government of Nunavut.
- **Pacific Region**, with 27,000 kilometres of coastline and 560,000 square kilometres of ocean, attracts approximately 750,000 vessel movements a year. Ensuring the safety of these movements is challenging, as weather can vary dramatically and be very severe along the British Columbia coast.

Key Initiatives

Newfoundland and Labrador

CCG Services on the Labrador Coast

The provincial Department of Transportation and Works recently ran a pilot project to provide passenger ferry service between Blanc Sablon, Quebec (Labrador Straits area) and Corner Brook, Newfoundland, starting in January 2010. This expansion of service is now scheduled for the full 2010 winter season, barring interference from ice and weather conditions.

With the Labrador coast opened up, there will also be increased transit to the Canadian Arctic via this route. The Newfoundland and Labrador Region will have to manage the resulting increase in client demands.

CCG's national Search and Rescue (SAR) Needs Analysis identified the need for SAR resources along the Labrador Coast. The client expectations (provincial government, industry, Labradorians, mariners, and fishers) resulting from the increased transit will be monitored and managed closely by the Newfoundland and Labrador Region.

Maritimes

CCG Base Divestitures

A review of the department's infrastructure holdings, conducted after the merger of DFO and CCG in 1995, recommended the divestiture of CCG bases in Saint John, New Brunswick and Dartmouth, Nova Scotia. In 2009, the Province of Prince Edward Island expressed interest in purchasing the property where the CCG Charlottetown Base resides in order to develop a hotel and conference centre.

The Dartmouth move into a newly constructed government owned facility at the Bedford Institute of Oceanography (BIO), and the Saint John move into a leased property, will occur in 2011. Fiscal year 2010-2011 will be a year of planning and preparation for these significant changes to allow for a smooth transition and to permit planning for improved operational efficiency generated by the co-location of DFO and CCG employees at BIO.

Official Languages Action Plan

In the Maritimes Region, CCG is responsible for providing programs and services in the three Maritime provinces, including the province of New Brunswick, which is designated as a bilingual province. Recognizing the unique challenges presented, the region is focussed on enhancing its overall bilingual capacity. In addition, the region has the oldest CCG population in the country. Most management level positions in the region are bilingual but the incumbents of feeder groups who aspire to these positions are either not bilingual or are not at the level required. This creates additional challenges and pressures for developmental training. Maritimes Region will focus on providing ongoing maintenance training, renewing its approach to developmental training in second language, continuing to implement and monitor the measures identified in the Official Languages Action Plan developed in 2008, and working closely with the Office of the Commissioner of Official Languages to ensure our obligations under the *Official Languages Act* are met.

Quebec

By fall 2010, we will have completed the final phase of a crisis management training project. This three-day exercise is designed to combine the knowledge and experience of managers and resource persons to create a crisis cell (teams ready to respond in case of an urgent situation). In preparation for the session, participants will receive updates on legislation and regulations pertaining to our activities, as well as theoretical elements related to crisis management, leadership, and communications during a crisis situation.

Of course, this pilot project implies a partial revision of current operating methods. If we incorporate the project into our business culture, it will also call for constant vigilance to maintain the level of preparation required from the managers and partners who will form the crisis cells.

Central and Arctic

In August 2010, Central and Arctic (C&A) Region will participate in an annual sovereignty operation, led by the Department of National Defence, called Operation NANOOK. Operation NANOOK 2010 will be conducted in August 2010 in four areas of the Arctic: Lancaster Sound, Frobisher Bay, Resolute, and Pond Inlet. MCTS Iqaluit and the Arctic Regional Operations Centre (Sarnia) will be involved in handling marine radio requests and sovereignty-related traffic. Regional liaison officers will be embedded in Yellowknife as part of the naval taskforce group for the duration of the operation.

Each year, these operations grow in complexity and move farther into the high Canadian Arctic, involving more Canadian Coast Guard assets and staff. This year, increased federal presence and surveillance will span the entire operation. In support of this, CCG C&A will provide a number of staff who will participate for the entire three week operation in all four areas of the Arctic.

The first part of the operation will be a military exercise with the Canadian Forces, supported by CCGS *Henry Larsen*. The second part of the operation is centred around a ship-source spill on the beach of Resolute. The regional Environmental Response team will deploy air transportable equipment, stage on-scene management capability, and move training and response personnel into the community for most of August. During the Community day and whole of government exercise, regional management and public affairs staff will be in Resolute to participate.

Pacific

The North Pacific Coast Guard Forum (NPCGF), made up of Canada, China, Japan, Korea, Russia, and the United States, fosters multilateral cooperation in the North Pacific Ocean in areas such as maritime security, maritime domain awareness, the combating of illegal drug trafficking and illegal migration, fisheries enforcement, and combined operations.

CCG leads a multi-departmental Canadian team at the NPCGF. The team includes the Canada Border Services Agency, Fisheries and Oceans, the Royal Canadian Mounted Police, and Transport Canada, whose mandates all reflect the activities of the Forum.

Canada hosted the 11th NPCGF in 2010. CCG Pacific Region was responsible for organizing the Experts Meeting in Victoria, BC, March 22-26, 2010, and is also planning the Summit Meeting in Vancouver, BC, September 13-17, 2010. The former was attended by 87 delegates and included a plenary session translated into five different languages.

By staging these events, CCG will achieve two of its commitments from the International Activities section of the Agency's 2009-2012 Business Plan. These commitments identified the Assistant Commissioner, Pacific Region, as the lead to host the Experts and Summit Meetings of the North Pacific Coast Guard Forum.

(5) WHAT WE DO EVERY DAY

This section describes, by PAA Sub-Activity, the day-to-day activities related to the programs and services Coast Guard provides to Canadians. It also highlights areas where significant investment is occurring and notes key initiatives aimed at improving the delivery of programs and services.

Overview of Financial and Human Resources

Table 2: CCG Planned Spending by PAA Sub-activity, 2010-2011 (thousands of dollars)

PAA Sub-activity	Salary	Other Operations and Maintenance (O&M)	Total Operating	Major Capital	Grants and Contributions	Total Planned Spending**
Aids to Navigation Services	12,301.2	11,919.7	**24,220.9**	-	-	**24,220.9**
Waterways Management Services	2,997.5	6,434.5	**9,432.0**	-	-	**9,432.0**
Marine Communication and Traffic Services	33,197.3	6,360.9	**39,558.2**	-	-	**39,558.2**
Icebreaking Services	948.6	18,375.3	**19,323.9**	-	-	**19,323.9**
Search and Rescue Services	11,228.2	16,182.9	**27,411.1**	-	4,921.0	**32,332.1**
Environmental Response Services	6,185.9	2,902.0	**9,088.0**	-	-	**9,088.0**
Maritime Security	5,788.3	6,463.3	**12,251.5**	-	-	**12,251.5**
Coast Guard College	8,063.0	4,349.1	**12,412.1**	-	-	**12,412.1**
Coast Guard Fleet Operational Readiness *	175,239.3	67,016.0	**242,255.2**	229,395.7	-	**471,650.9**
Lifecycle Asset Management Services	53,463.7	25,856.7	**79,320.3**	57,799.9	-	**137,120.2**
Total	**309,413.0**	**165,860.4**	**475,273.4**	287,195.6	4,921.0	**767,390.0**

* *O&M includes fuel for FAM, Science & NAFO*
** *Excludes Vote-Netted Revenue (VNR)*

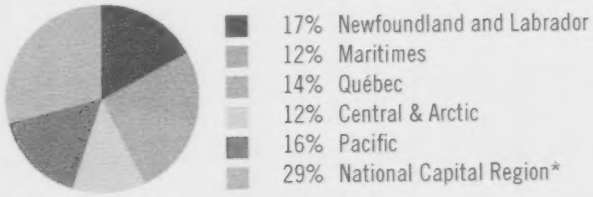
Table 3: CCG Service Costs by PAA Sub-activity, 2010-2011 (thousands of dollars)

PAA Sub-activity	Direct Program Operating	Allocation of Operating From:		Total Service Cost (Operating)
		Coast Guard Fleet Operational Readiness	Lifecycle Asset Management Services	
Aids to Navigation Services	24,220.9	37,947.5	33,451.2	**95,619.6**
Waterways Management Services	9,432.0	965.6	682.9	**11,080.5**
Marine Communication and Traffic Services	39,558.2	1,316.1	16,020.6	**56,894.9**
Icebreaking Services	19,323.9	39,421.7	9,353.5	**68,099.1**
Search and Rescue Services	27,411.1	86,266.5	16,375.3	**130,053.0**
Environmental Response Services	9,088.0	842.3	682.7	**10,613.0**
Maritime Security	12,251.5	14,595.6	2,575.7	**29,422.9**
Coast Guard College	12,412.1	-	178.4	**12,590.5**
Total Coast Guard Program	**153,697.9**	**181,355.3**	**79,320.3**	**414,373.5**
Science	N/A	37,040.6	-	**37,040.6**
Conservation & Protection	N/A	23,859.3	-	**23,859.3**
Northwest Atlantic Fisheries Organization	N/A	-	-	**N/A**
Total	**153,697.9**	**242,255.2**	**79,320.3**	**475,273.4**

Table 4: Total Number of CCG Full-time Equivalents (FTEs), Utilization by PAA Sub-activity

PAA Sub-activity	O&M FTEs	Major Capital FTEs	Total FTEs
Aids to Navigation Services	205.0	-	**205.0**
Waterways Management Services	41.0	-	**41.0**
Marine Communication and Traffic Services	436.0	-	**436.0**
Icebreaking Services	15.0	-	**15.0**
Search and Rescue Services	175.0	-	**175.0**
Environmental Response Services	86.0	-	**86.0**
Maritime Security	14.0	-	**14.0**
Coast Guard College	114.0	-	**114.0**
Coast Guard Fleet Operational Readiness	2,724.0	23.0	**2,747.0**
Lifecycle Asset Management Services	876.0	128.0	**1,004.0**
Total	**4,686.0**	**151.0**	**4,837.0**

Figure 3: Financial Allocations by Region, 2010-2011



* *Funding in NCR includes a total of $18m related to national programs – these funds will ultimately be spent in the regions; distribution of those funds has not yet occurred.*

Services by PAA Sub-Activity

Aids to Navigation

The Aids to Navigation program provides marine aids to navigation such as short-range marine aids – including visual aids (fixed aids and buoys), sound aids (fog horns), and radar aids (reflectors and racons) – as well as long-range marine aids, such as the Differential Global Positioning System (DGPS). The program's services ensure access to a reliable navigation system and support a safe, accessible, and efficient environment for the commercial marine transportation sector, fishers and pleasure craft operators. As such, it is the cornerstone of Canada's navigation system and provides essential support to many government priorities.

2009-2010 Accomplishments

Aids to Navigation...

- Completed the modernization of three aids to navigation directives.
- Produced an AToN21 project close-out report.

What we do...

The program helps mariners navigate safely and efficiently by:

- Operating a system of floating, fixed, and electronic aids to navigation;
- Monitoring the reliability and relevance of the Canadian aids to navigation system;
- Ensuring the application of national standards for aids to navigation;
- Providing and distributing safety information such as the Notices to Mariners (NOTMAR) and Canada's List of Lights publications; and
- Regularly consulting with clients at the local level regarding changes to any aids to navigation system to ensure that all users' input is taken into account.

The Aids to Navigation program is delivered by...

- **CCG Maritime Services staff**, who define and design the aids to navigation system. They manage the service by developing policies, standards, procedures, and guidelines. Through consultations and communication they monitor, evaluate, and improve program performance. In addition, they provide advice, and subject-matter expertise at marine-related intergovernmental and international fora. Maritime Services staff also maintain CCG's Notices to Mariners website, which provides mariners with updated navigation safety information.
  - **CCG Aids to Navigation staff**, strategically located in nine locations across Canada, are responsible for providing aids to navigation services and navigational safety information to mariners. As well, there are approximately 109 lightkeepers, who are responsible for services at CCG's major lightstations on the East and West Coasts of Canada.
- **CCG Fleet**, which is the principal asset used by CCG's Aids to Navigation program to tend and retrieve floating aids to navigation (buoys).
- **DFO Real Property Directorate**, which is responsible for the lifecycle management of some major aids to navigation.
- **Various contractors**, whom complement the buoy service work performed by CCG Fleet.
- **CCG Integrated Technical Services**, which implements a lifecycle management system to ensure that both our electronic and traditional aids to navigation assets are capable, reliable, and available.

Who we serve...

The Aids to Navigation program's main clients are the shipping industry, recreational boaters, commercial fishers, and pilots, as well as the various associations and committees that represent them. The program generally engages with its clients to ensure they understand the program's levels of service, to identify gaps in service delivery, and to foster meaningful exchanges to address user needs while ensuring that expectations are realistic. Aids to navigation systems are reviewed in a cyclical rotation, with each system evaluated approximately every five years. Client engagement is accomplished through existing media, such as the CCG website, printed media, and various meetings and sessions with regional representatives. The program also engages its

clients via various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils, the Regional Marine Advisory Boards, the Local Marine Advisory Councils and the Regional Recreational Boating Advisory Councils.

Looking Forward...

CCG continues to look at ways to leverage new technology, to ensure the safety of mariners and to consistently meet service standards to its clients. Thanks to CCG's Aids to Navigation of the 21st Century (AToN21) initiative (page 35), the program now benefits from a lighting system relying almost exclusively on Light-emitting Diode (LED) / LED-solar technology. Also, where practical, buoys are now made of plastic, which greatly reduces reliance on large vessels for their tending and maintenance costs at CCG bases. We are continuing to find ways to improve the way we deliver and maintain our services, such as the implementation of four-season lighted buoys that will reduce maintenance and provide mariners with enhanced capabilities, especially in the winter. In 2010-2011, the program will complete the modernization of its remaining aids to navigation directives, initiated under CCG AToN21.

Furthermore, the program will support the government's effort regarding the coming into force of the *Heritage Lighthouse Protection Act*, most notably by establishing a framework to guide the management of CCG's fixed aids, which includes lighthouses. The Minister has also requested a review of the additional services performed by lightkeepers (page 36).

The advent of e-Navigation and its many possibilities is also being monitored for potential impacts and opportunities, such as the introduction of virtual aids to navigation, along with the Automatic Identification System, to better meet the changing needs of our clients. The program will also work toward standardizing the Levels of Service (LOS) provided to clients across CCG's five regions.

LORAN-C Termination of Signal

On January 7, 2010, the United States Coast Guard (USCG) announced that termination of the US LORAN-C signal and phased decommissioning of the US Loran-C infrastructure will start on February 8, 2010. All US LORAN-C stations are expected to cease transmitting by October 1, 2010.

The LORAN-C systems in Canada and the United States work in tandem. Once the U.S. service is discontinued, the Canadian system will not be operational. Consequently, Canada will also decommission its Loran-C system in 2010.

Commitment	Lead
2010-2011	
Develop standard agreements with service providers to define roles and responsibilities.	DG, MS

Note: Fixed aids to navigation include structures such as lighthouses and sector lights.

Aids to Navigation Services

Provides these services...	Measured this way...*	With these targets...
Operational aids to navigation systems **	Percentage of time an aid has been operating properly versus time it was expected to be operational (mission time), over a 3 year average	99%
Operational long-range aids to navigation systems **	Percentage of time DGPS signal is available versus time it was expected to be operational (mission time)	99%
Provision of navigation safety information that affects nautical charts and publications **	Percentage of on time publications of the monthly Notice to Mariners (NOTMAR) (12 editions)	100%

To achieve this result...	Measured this way...*	With these targets...
Aids to Navigation systems and information facilitate safe and expeditious movement of maritime traffic	Number of ships other than pleasure craft involved in a marine accident due to striking (maintenance of a 5-year average)	< 80

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Table 5: Aids to Navigation Services Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador*	3,284.0	1,289.5	**4,573.5**
Maritimes	1,050.8	2,247.2	**3,298.1**
Quebec	657.0	934.0	**1,591.0**
Central and Arctic	983.6	3,046.0	**4,029.6**
Pacific*	3,927.8	3,109.6	**7,037.4**
National Capital Region	2,398.0	1,293.3	**3,691.3**
Direct Program Total	**12,301.2**	**11,919.7**	**24,220.9**
Coast Guard Fleet Operational Readiness Allocation	27,449.9	10,497.6	**37,947.5**
Lifecycle Asset Management Services Allocation	22,546.9	10,904.3	**33,451.2**
Total Service Cost	**62,298.0**	**33,321.6**	**95,619.6**

* *Salary differences between regions are largely due to variations in activities related to lighthouses. Of 246 Canadian major lighthouses, 51 are staffed. CCG maintains 23 staffed staffed lighthouses in the Newfoundland and Labrador Region, 27 in the Pacific Region, and, for sovereignty reasons, 1 in the Maritimes Region. Canada is one of the few countries that continue to staff lighthouses.*

Key Initiatives

Aids to Navigation of the 21st Century

The Aids to Navigation of the 21st Century (AToN21) initiative reaffirmed our commitment to innovation and continuous improvement, while maintaining our strong tradition of service and safety. In 2009-2010, a project close-out report was prepared, highlighting the successes of the AToN21 project and discussing the challenges encountered. Many of the project initiatives are now part of the regular operations of the Aids to Navigation (ATN) program. For example, it is now standard practice within CCG to consider new technologies in support of our aids to navigation system. CCG is now working to complete the update of its governing directives for aids to navigation to ensure they reflect the new technological realities and today's mariners' needs; the modernization of these directives will be completed in 2010-2011.

Commitment	In response to...	Lead
2010-2011		
Complete the modernization of the five remaining aids to navigation directives.	AG	DG, MS

Review of Lightstation Services

In Canada, 51 lightstations remain staffed (27 in British Columbia, 23 in Newfoundland and 1 in New Brunswick). The station in New Brunswick (Machias Seal Island) is being kept staffed for sovereignty purposes. In 2009, CCG advanced a plan to automate and destaff 50 lightstations in a gradual manner in British Columbia and Newfoundland and Labrador. The decision was based on the fact that automated lightstations in the rest of the country have been destaffed for over a decade without compromising marine safety.

Concerns were raised by some stakeholders regarding additional services provided by lightkeepers. In September 2009, the Minister asked CCG to undertake a further review of the additional services provided by lighthouse staff on Canada's East and West Coasts. In April 2010, the Senate Standing Committee on Fisheries and Oceans (SCOFO) has accepted to conduct this review.

Commitment	Lead
2010-2011	
Support the work of the Senate Standing Committee on Fisheries and Oceans on the review of lightstation services.	DG, MS

Reinvestment in the Asset Base

We expect to spend $12.4 million in 2010-2011 on capital projects to refurbish, modernize, and/or replace these assets or their components: floating aids, minor and major fixed aids structures, visual and aural aids, and the infrastructure of the Differential Global Positioning Systems (DGPS) and related sites. For a complete description of these capital projects and related expenditures, see Annex A (page 85).

Waterways Management Services

Navigability in Canadian waterways is highly influenced by water levels and the bottom condition of shipping channels. The monitoring and maintenance services provided by the Waterways Management program enable CCG to help ensure safe, economical, and efficient movement of ships in Canadian waterways. These services also contribute to the maintenance of specific navigable channels, reduce marine navigation risks, and support environmental protection.

2009-2010 Accomplishments

Waterways Management...

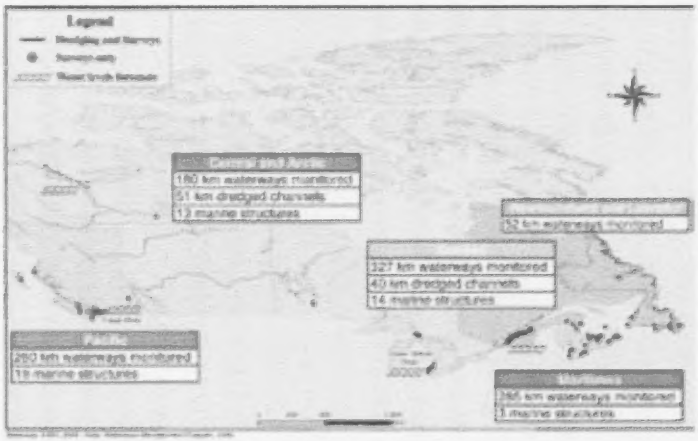
- Monitored and provided information to users on the bottom conditions of Canada's 19 main shipping channels which represent a total of 823.9 km.
- Provided water level forecasts for the St. Lawrence, St. Clair, Detroit, Fraser and Mackenzie Rivers.

What we do...

- Monitor channel bathymetry[2] by surveying commercial channels to identify the bottom conditions, as well as restrictions on or hazards to safe navigation, and provide this information to mariners, pilots and other stakeholders;
- Provide water-depth forecasts in the commercial channels in the St. Lawrence, Detroit, St. Clair, Fraser, and Mackenzie Rivers;
- Manage channel dredging in specific areas;
- Maintain marine structures that help manage currents and water levels, wave climates, ice covers, sedimentation rates and patterns, and scour and erosion. These structures also reduce channel maintenance needs and prevent ice jams from forming, thereby, reducing CCG icebreaking needs; and
- Provide guidelines and analysis on channel design and use, contribute to the international control of water levels in the St. Lawrence River, and operate the Canso Canal.

The Waterways Management program is delivered by...

- **CCG Maritime Services staff**, who define and design the waterways management program. They manage the service by developing policies, standards, procedures, and guidelines through consultations and communication. They also analyze survey results, calculate water-depth forecasts to inform stakeholders and manage dredging projects. The Waterways Management staff continuously plan, monitor, evaluate, and improve program performance. In addition, they provide advice, guidance and subject-matter expertise through marine-related intergovernmental and international fora.
  - **CCG Waterways Management** personnel who provide highly technical expertise on questions related to the safe passage of vessels in the Canadian waterways. In particular, they offer mariners underwater information they cannot obtain elsewhere. Waterways management personnel are located in all CCG regional offices, as well as in Headquarters.
- **Canadian Hydrographic Service (CHS), CCG Fleet**, and **Environment Canada**, which provide services such as conducting bottom-sounding surveys in specific waterways and providing forecasts of water-level depth so mariners can plan safe and efficient passage, and maximize their cargo.
- **Public Works and Government Services Canada (PWGSC)**, which provides services such as bottom-sounding surveys, dredging, and the disposal of sediments.



[2] Bathymetry – the measurement of the depth of bodies of water

- **DFO Real Property Directorate**, which is responsible for the lifecycle management of marine structures.
- **CCG Integrated Technical Services**, which is responsible for the managing the hardware related to MARINFO communication system.

Who we serve...

The Waterways Management program's main clients are mariners, pilots, the shipping industry, channel owners and operators, ferry operators, and fishers, as well as the various associations and committees that represent them. The program generally engages with clients to share program vision and direction, identify perceived gaps or existing variations in service delivery, and foster meaningful exchanges to address user needs while ensuring that expectations are realistic. This is accomplished through the existing media, such as the CCG website and various printed media, as well as workshops and information sessions. Clients are also informed through various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils.

Looking Forward...

The Waterways Management program is influenced by the trend to bigger and faster vessels, increasing pressure to maximize water levels and channel depths for optimum loading, climatic change, safety manoeuvring limits, and the need to balance between environmental and economical interests. These issues increase the need to maintain our engineering guidelines for the design, maintenance and utilization of commercial channels. Users continue to ask for accurate waterways conditions such as water-depth forecasts and channel-bottom information.

In this context, the program needs to be constantly aware of innovations in technologies and management practices that can support more efficient operations. For instance, the Waterways Management program intends to produce two national directives to clearly define the provision of surveys and dredging services it provides.

Well-managed partnerships contribute to the efficient coordination of the program's activities and help prevent duplication of activities with internal and external partners such as PWGSC and CHS (channel-bottom monitoring), and Environment Canada and CHS (available water forecasts). One example of a well-managed partnership is that with DFO Real Property for the maintenance and refurbishment of marine structures. Because many of these structures are in very poor condition, there is a need to jointly develop and implement an investment plan for them.

The Waterways Management program is continually evaluating and integrating new initiatives to improve the information it provides to its clients. For example, the program is deeply involved in the MARINFO project in Quebec Region, the AVADEPTH service in Pacific Region and in the definition and implementation of e-Navigation in CCG. The program is also finalizing, in consultation with key stakeholders, a national directive to specify the sounding surveys it provides for channels, identifying the bottom conditions, as well as restrictions on or hazards to safe navigation.

Commitment	Lead
2010-2011	
Update the engineering guidelines for the design, maintenance and utilization of commercial channels.	DG, MS
Complete and implement two national directives on surveys and dredging services.	DG, MS

Waterways Management		
Provides these services...	Measured this way...*	With these targets...
Dredging of the Canadian portions of the Great Lakes connecting Channels and St. Lawrence River maintained and managed **	Percentage of number of kilometres of channel dredged vs. planned	100%
Main commercial shipping channel bottoms surveyed **	Percentage of number of kilometres of channels surveyed vs. planned	100%
Water Level Forecasts **	Percentage of on time provision of biweekly water level forecasts for the St-Lawrence (30 forecasts a year)	100%
To achieve this result...	**Measured this way...***	**With these targets...**
Waterways management and information help ensure accessibility of main commercial shipping channels and contribute to their safe use **	Maintenance of a 5-year average for the number of ships other than pleasure craft involved in a marine accident due to a grounding	<111

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Table 6: Waterways Management Services Resource Profile, 2010-11 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	-	38.0	**38.0**
Maritimes	884.1	867.8	**1,751.90**
Quebec*	1,109.80	3,716.10	**4,825.90**
Central and Arctic	82.3	760.4	**842.7**
Pacific	251.9	844.7	**1,096.60**
National Capital Region	669.4	207.4	**876.9**
Direct Program Total	**2,997.50**	**6,434.50**	**9,432.00**
Coast Guard Fleet Operational Readiness Allocation	698.5	267.1	**965.6**
Lifecycle Asset Management Services Allocation	460.3	222.6	**682.9**
Total Service Cost	**4,156.30**	**6,924.20**	**11,080.50**

* *Includes $4,600.0K for dredging that is fully recovered through vote-netted revenue.*

Key Initiative

Post-Panamax Study, St. Lawrence River

Given the increase in marine traffic that is widely expected to occur in the near future, Canadian ports are seeking ways to increase their competitiveness. Shipping industry representatives have informed us of their plans to use new-generation post-Panamax[3] vessels, especially on the restricted channel of the St. Lawrence River between Quebec City and Montreal. Post-Panamax vessels do not meet current CCG guidelines for allowing vessels to travel in both directions in some sections of the shipping channel.

At the request of shipping industry representatives, a risk assessment to aid in the decision to authorize wide-beam vessels to navigate the St. Lawrence River up to the port of Montreal was prepared, in partnership with Transport Canada (TC) and the Laurentian Pilotage Authority. A draft report was completed in 2009-2010. During 2010-2011, CCG and TC will analyze the recommendations of the report and propose next steps, which could include the implementation of the recommendations, additional analysis, or any other actions required to complete the study. Although it was first planned for 2009-2010, this analysis will be performed in 2010-2011 with Transport Canada.

Commitment	Lead
2010-2011	
Analyze the recommendations of the risk assessment report, in collaboration with Transport Canada and clients.	AC, Quebec DG, MS

Reinvestment in the Asset Base

We expect to spend $515 thousand in 2010-2011, as part of the long-term objective to restore the charted depths and full design widths of the Canadian portions of the Great Lakes Connecting Channels. For a complete description of the capital project and related expenditures, see Annex A (pg. 85).

[3] Panamax vessels are those whose dimensions are such that they can fit through the locks of the Panama Canal. Post-Panamax vessels are larger than Panamax vessels, and they therefore cannot fit through the locks of the Panama Canal. These vessels are usually more than 32.2 metres wide.

Marine Communication and Traffic Services

Safety of mariners and environmental protection in Canadian waters is highly dependent on the efficient and timely communication of information. With centres located across Canada, the Marine Communication and Traffic Services (MCTS) program is CCG's communication backbone. By ensuring that an efficient communication system is available 24/7, the program contributes to the safety of life at sea, the protection of the marine environment, the efficient movement of shipping in waterways, and the provision of essential and accurate information to mariners. Its services are essential to deploying Search and Rescue and Environmental Response teams promptly and effectively to maritime crisis situations. MCTS is, in many situations, the only means by which a ship's call for assistance can be heard.

2009-2010 Accomplishments

Marine Communication and Traffic Services...

- Developed Competency profiles for MCTS Officers and Shift Supervisors.
- Selected twenty-one new recruits from the two National recruitment processes to enter the MCTS Officer training program.
- Began transmissions, on a test basis, for the navigational warning system for two Navigational Areas (NAVAREAs) in the Arctic.

What we do...

- Manage vessel traffic by providing timely information and assistance to vessels to maintain vessel safety and achieve efficiency;
- Provide distress and safety communications and coordination to detect distress situations, and ensure timely assistance;
- Provide vessel screening to prevent the entry of unsafe vessels into Canadian waters;
- Manage an integrated marine information system that initiates the emergency response network and supports other government departments; and
- Support maritime domain awareness by providing vessel information on maritime security to other government departments and to the CCG component of Marine Security Operations Centres (MSOC).

The Marine Communication and Traffic Services program is delivered by...

- **CCG Maritime Services staff**, who define and design the provision of MCTS by developing policies, standards, guidelines, and procedures. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. They also provide advice, guidance, and subject-matter expertise through marine-related inter-governmental and international fora.
  - Approximately 400 certified **MCTS Officers**, who work in 22 MCTS Centres strategically located across Canada, coordinating distress and safety communications and providing vessel traffic services to mariners, industry, other government departments, and the general public.
- **CCG Integrated Technical Services (ITS)**, which provides MCTS with critical engineering and technical support.
- **DFO Real Property Directorate**, which is responsible for the lifecycle management of MCTS Centres.
- **Environment Canada (EC)** and **Transport Canada (TC)**, through Memoranda of Understanding. EC supplies essential marine weather and ice information, and TC provides the regulatory regime for Vessel Traffic Services and ship radio requirements.
- The **United States Coast Guard**, which manages (via a treaty) vessel traffic management in the Juan de Fuca Strait, and on the Detroit and St. Clair rivers (via a bilateral agreement).

Who we serve...

The MCTS program's main clients are mariners – including commercial fishers, recreational boaters, commercial shippers and pilots – and various associations and committees that represent them. The program generally engages with its clients to promote understanding and to encourage feedback on the services it provides. This is achieved through existing media, such as the CCG website, Notices to Mariners and various printed media. Clients are also informed through various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils, the National and Local Marine Advisory Councils, and the Recreational Boating Advisory Council.

Looking Forward...

The MCTS program is highly dependent on new technology driven by international fora such as the International Maritime Organization and the International Telecommunication Union; on changes in the marine transportation industry, which has seen the introduction of larger and faster vessels; and on heightened security concerns. Of particular importance for the MCTS program is the implementation of e-Navigation. The advent of e-Navigation, and in particular the introduction of the Automatic Identification System (AIS) and voice/data sharing network technology, is expected to offer opportunities for increased efficiencies in the delivery of the MCTS program and for a review of its service delivery model. For existing facilities, the program is highly dependent on good asset condition and life cycle support to ensure continuous operation; the program also requires a Service Level Agreement (SLA) with Integrated Technical Support (ITS) to ensure MCTS Levels of Service and standards are met.

The MCTS program has first to ensure its continuity. Twenty-five percent of the MCTS workforce, about 400 Officers, could leave during the next five years through retirement. CCG has made the recruitment of new MCTS Officers a priority, and 70 new Officers have been trained in the past three years. An average of 20 Officers will be recruited annually in the coming years. For this reason, Radio Operations (RO) has been identified as an at-risk group in CCG's Strategic Human Resources Plan.

Commitment	Lead
2010-2011	
Develop an SLA with ITS support for the maintenance of MCTS systems.	DG, MS

Marine Communication and Traffic Services

Provides these services...	Measured this way...*	With these targets...
Responses to distress and safety calls and coordination of SAR communications **	Number of calls received requesting assistance, based on benchmark of a 5-year average	7, 750
Screening and issuance of Vessel / traffic clearances to ships of 500 tons – gross tonnage or more entering Canadian waters (Great Lakes not included) **	Number of offshore clearances issued, based on benchmark of a 5-year average	13, 550
Issue Navigational Warnings **	Number of Notices to Shipping issued, based on benchmark of a 5-year average	13, 000

To achieve this result...	Measured this way...*	With these targets...
Safety of life at sea, efficient movement of shipping, and provision of essential information to mariners	Number of ships other than pleasure craft involved in a marine accident due to a collision (based on a five year average)	17

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Table 7: Marine Communication and Traffic Services Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	5,435.8	831.2	**6,267.1**
Maritimes	5,723.2	589.6	**6,312.7**
Quebec	6,378.6	409.2	**6,787.7**
Central and Arctic	4,574.2	1,710.7	**6,284.9**
Pacific*	9,239.3	1,973.8	**11,213.1**
National Capital Region	1,846.2	846.4	**2,692.7**
Direct Program Total	**33,197.3**	**6,360.9**	**39,558.2**
Coast Guard Fleet Operational Readiness Allocation	952.0	364.1	**1,316.1**
Lifecycle Asset Management Services Allocation	10,798.2	5,222.4	**16,020.6**
Total Service Cost	**44,947.6**	**11,947.3**	**56,894.9**

* *Pacific region salary dollars are higher compared to other regions because of the need to staff more MCTSOs in response to the region's marine traffic volume.*

Key Initiatives

NAVAREAs

NAVAREAs are geographical sea areas established by the International Maritime Organization (IMO) to coordinate the transmission of navigational warnings to mariners. In October 2007, the IMO confirmed Canada in its role as international coordinator and issuing service for navigational warnings for two NAVAREAs in the Arctic. The broadcasting and coordinating of navigational warnings will be done from Prescott MCTS Centre via the Inmarsat SafetyNET satellite service using the English language.

In 2009-2010, we finalized the planning of this international service. Equipment, such as satellite receivers and computers, was purchased and MCTS Officers were trained. With Budget 2010 providing the Coast Guard with $2.2 million, over two years, we plan to start the initial testing phase of the service in the summer of 2010. We will make appropriate adjustments to ensure an effective service is available and we will fully launch the NAVAREA transmission service in 2011-2012.

Commitment	Lead
2010-2011	
Start initial satellite test transmissions of navigational safety information for the two NAVAREAs.	DG, MS DG, ITS AC, C&A
2011-2012	
Launch the NAVAREA transmission service.	DG, MS AC, C&A

Canada Shipping Act, 2001

The *Canada Shipping Act, 2001* affected MCTS in two key ways:

- MCTS Officers (MCTSOs) are have greater flexibility to direct regulated vessels for marine events deemed detrimental to safe navigation; and
- MCTSOs now have a clearer role to direct only vessels under their authority, not all the vessels in a vessel traffic services zone.

Information sessions have been provided to MCTSOs, and all of our documentation pertinent to *Canada Shipping Act, 2001* has been updated. CCG has also met with Transport Canada to discuss the development of an enforcement strategy to ensure compliance with the Act. During 2009-2010, we provided technical support to Transport Canada in the development of the new *Northern Canada Vessel Traffic Services Zone Regulations*. These new regulations were published in the *Canada Gazette Part I* on February 27, 2010. The government's decision to implement the Northern Canada Vessel Traffic Services zone, making it mandatory for vessels of a prescribed class to report information prior to entering or leaving Canadian arctic waters, has extended the timeline for completion of the Northern Canada Vessel Traffic Services Zone Regulations. Implementation of the new *Northern Canada Vessel Traffic Services Zone Regulations*, along with continued support to Transport Canada on the revisions to the current *Vessel Traffic Services Regulations*, will take place during 2010-2011.

Commitment	Lead
2010-2011	
Implement the new *Northern Canada Vessel Traffic Services Zone Regulations*, once approved.	DG, MS

Marine Communication and Traffic Services Technical Training

The development of a training framework for the MCTS program is critical to CCG operations. The MCTS training framework will include a variety of initiatives to support the MCTS workforce of about 400 certified MCTS Officers (MCTSOs) to ensure professional development and adequate recruitment.

In 2009-2010, work on the training framework continued with the development of a refresher course and competency profiles for MCTSOs. Twenty-one recruits were selected from the two national recruitment campaigns to enter the MCTS Officer Training Program and a second national bilingual recruitment process was completed. In 2010-2011, the refresher course for MCTSOs will be delivered. A national recruitment process, for both English essential and bilingual positions, will be run.

Commitment	Lead
2010-2011	
Implement a refresher course for existing Marine Communication and Traffic Services Officers.	DG, MS ED, CCGC
2011-2012	
Review the Marine Communication and Traffic Services ab-initio development program[4].	DG, MS

Reinvestment in the Asset Base

We are making substantial investments in assets related to MCTS. A number of projects are under way, most of which are multi-year. We expect to spend $21.5 million on these projects in 2010-2011 in order to refurbish, modernize, and/or replace the following assets or their components: information and operational systems, communication systems, communication equipment, communication towers; and site infrastructure related to these projects. For a complete description of these projects and related expenditures, see Annex A (pg. 85).

Commissioner's Commendation awarded to Patrick McQuarrie

On August 23rd 2009, after Hurricane Bill, CCG MCTS Officer Patrick McQuarrie detected a very faint call for assistance. The call was almost inaudible and garbled and could easily have been mistaken for radio interference. Mr. McQuarrie demonstrated the highest levels of professionalism by detecting the call, accurately determining the situation and issuing a Mayday Relay message immediately after deciphering the information from the radio transmission. This, coupled with an effective on-the-water response from a CCG Inshore Rescue Boat, saved the life of a person who had fallen overboard from a small aluminium boat that had capsized and drifted about 1.5 kilometres out to sea within 15 minutes of capsizing.

Left to right: Nancy Hurlburt (AC, Maritimes), Patrick McQuarrie.

[4] An ab-initio is a person who is recruited and selected to participate in the MCTS Officer Training and Certification program in order to acquire the knowledge and skill requirements of a MCTS Officer.

Icebreaking Services

Given the harsh challenges the extremes of Canadian geography and climate bring to maritime traffic, icebreaking services are essential to ensure that shipping moves safely and efficiently through and around ice-covered waters in Eastern Canada and the Great Lakes throughout the winter, as well as during the summer navigation season in the Arctic. Icebreaking operations facilitate the informed, safe, and timely movement of maritime traffic and contribute to keeping most Canadian ports open for business year-round, thereby preventing flooding on the St. Lawrence River and supporting fishers, the marine industry, and numerous coastal communities.

2009-2010 Accomplishments

Icebreaking Services...

- Conducted 97 escorts, in ice, in southern Canada from April 1st to June 28, 2009 for a total of 950 hours of assistance.
- Conducted 32 escorts in the Arctic from June to November 2009 for a total of 1,577 hours of assistance.
- Started a review of the Icebreaking Levels of Service to industry.
- Promulgated icebreaking directives.

What we do...

- Respond to requests for icebreaking support;
- Provide route assistance, ice-routing advice, and ice information;
- Resupply isolated Northern settlements when commercial services are not available;
- Manage flood prevention on the St. Lawrence River through the monitoring, prevention, and breaking up of ice jams;
- Break out ice in harbours and ports;
- Support Arctic sovereignty; and
- In partnership with the Canadian Ice Service, provide ice information to marine shipping to ensure the safe movement of vessels in the winter.

The Icebreaking Services program is delivered by...

- **CCG Maritime Services staff**, who define and design the icebreaking program. They manage the service by developing policies, standards, procedures, and guidelines. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. In addition, they provide advice, guidance, and subject-matter expertise through marine-related intergovernmental and international fora.
  - **Maritime Services Regional Ice Superintendents**, who work in Ice Operations Centres, ensuring that ice information is disseminated to vessels by radio, Internet, fax, etc.; that routes around ice are prepared and distributed to mariners; and that icebreakers are strategically positioned to respond to requests for assistance. Ice Operations Centres are located in St. John's, NL; Dartmouth, NS; Quebec City, QC; and Sarnia, ON.
- **CCG Fleet**, which operates 6 icebreakers in the Arctic between June and November and 17 icebreaking vessels for winter operations on the East Coast of Canada, the St. Lawrence River, and the Great Lakes between December and May.
- **A partnership agreement with Environment Canada's Canadian Ice Service**, which is administered by Maritimes Services headquarters program staff to provide CCG with essential marine weather and ice information.
- **A treaty with the United States Coast Guard for joint icebreaking operations on the Great Lakes**, administered by Maritime Services headquarters and regional program staff to maximize icebreaking support capability and effectiveness for both nations.

Who we serve...

The Icebreaking program provides ice information and icebreaking services to clients on ice-covered waters of the Great Lakes, the St. Lawrence River, the East Coast of Canada, and the Arctic. The program's main clients are mariners, including the commercial shipping industry, ferries, fishing vessels, ports, river pilots, ice navigators, shipping agents, and Arctic residents. The program conducts annual pre- and post-season meetings with its clients to share program vision and direction, identify perceived gaps or existing variations in service delivery, and foster meaningful exchanges to address user needs while ensuring that expectations are realistic. This is achieved through existing media, such as the Canadian Coast Guard website, icebreaking directives, and various printed media. Clients are also informed through various fora, such as the National and Regional Canadian Marine Advisory Councils, and the Arctic Marine Advisory Board.

Looking Forward...

Climate change and economic development have led to demands for extended periods of navigation through ice both in the South and in the Arctic. Given the need to maximize resource utilization in both ice operations and ice routing and information services, the program needs to be constantly aware of innovations in technologies and management practices that can support more efficient operations. Quality and readily available ice information is of particular importance to vessels navigating through and around ice-covered waters. Satellite imagery and enhanced marine radars, for example, can support the timely detection and recognition of dangerous ice, thereby enhancing safety and reducing navigation times. Well-managed partnerships are also essential for the efficient coordination of activities with internal and external partners. The Icebreaking Services program is continually integrating new initiatives to improve the information it provides to its clients.

A number of critical challenges are facing the program and its ability to deliver its advertised Levels of Service (LOS). First, the current icebreaker fleet is quite different, in both size and capability, from that which existed in 1997 when the current LOS were finalized with industry. In addition, the average age of the vessels that remain in service is quite high, and they are increasingly prone to unpredictable mechanical failures that either reduce their capability or remove them completely from icebreaking operations for substantial periods of time. Vessels' increasingly fragile mechanical state, combined with the lack of reserve capacity to backfill in the case of removal of this resource for any reason, is the most significant issue facing the program today and into the near future.

As a result of an internal review of the Icebreaking program, a number of initiatives were begun in 2009 that will give the program a platform from which to move forward in the coming years. These include:

- A review of the current LOS provided to the maritime industry. The original LOS were developed in 1990, were finalized in 1997, and are predicated on a much different fleet composition from the one that exists today.
- An update of the Ice Information Services Partnership Agreement with the Canadian Ice Service.
- An economic analysis and assessment of the benefit and impact of the services provided by the program to the nation.

The majority of vessels damaged in ice tend to be those engaged in the seal fisheries during the winter ice season. As a result of a recommendation in the final report on the *L'Acadien II* incident, the CCG issued new icebreaking operations directives in February 2009 that are intended to provide guidance to regional program personnel and program clients on icebreaking service delivery. There were no reports of vessels damaged in ice in 2009 (January to November), while there were 15 in 2008 and 25 in 2007.

Commitment	Lead
2010-2011	
Review the maritime industry's icebreaking requirements, and amend the Icebreaking Levels of Service, as feasible and appropriate, in consultation with clients.	DG, MS
Renew and amend, as appropriate, the Ice Information Services Partnership Agreement (IISPA) with the Canadian Ice Service (CIS).	DG, MS

Icebreaking Services

Provides these services...	Measured this way...*	With these targets...
Icebreaking Operations: vessels escorted, harbours and channels broken out, ice jams prevented, fuel and dry cargo delivered to northern settlements **	Percentage of icebreaking operations provided	100%
Provision of ice-related information during ice-seasons **	Number of ice charts produced	Specific targets TBD, in coordination with Environment Canada (CIS) through the IISPA (a 5 year agreement)
Re-supply of Northern communities for which there is no commercial service **	Percentage of CCG northern re-supply cargo (in metric tonnes) delivered, as requested in the agreements with Nunavut and Environment Canada, compared to the Fleet Operations plan	100%

To achieve this result...	Measured this way...*	With these targets...
Informed, safe and timely movement of maritime traffic through and around ice-covered waters is facilitated	Number of ships other than pleasure craft damaged by ice (maintain a 5-year average)	≤12

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Table 8: Icebreaking Services Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	61.1	2,048.8	**2,109.9**
Maritimes	91.7	3,028.2	**3,119.9**
Quebec	159.1	2,904.9	**3,064.0**
Central and Arctic	82.4	943.9	**1,026.3**
Pacific	-	236.5	**236.5**
National Capital Region	554.4	9,213.0	**9,767.3**
Direct Program Total	**948.6**	**18,375.3**	**19,323.9**
Coast Guard Fleet Operational Readiness Allocation	28,516.3	10,905.4	**39,421.7**
Lifecycle Asset Management Services Allocation	6,304.4	3,049.0	**9,353.5**
Total Service Cost	**35,769.4**	**32,329.7**	**68,099.1**

Search and Rescue Services

Canada is a maritime nation bounded by three oceans whose population and economy make significant use of waterways for commercial and recreational purposes. The marine environment can be dangerous and CCG is an important player in responding to emergencies that occur on water.

2009-2010 Accomplishments

Search and Rescue Services...

- Coordinated the response to over 8,000 SAR cases across the country.
- Completed an analysis of the CCG SAR mission coordinators' workload in all five rescue centres.

The federal Search and Rescue (SAR) program is a cooperative effort by federal, provincial and municipal governments. CCG's SAR program leads, delivers, and maintains preparedness for the 5.3 million square kilometre maritime component of the federal SAR system. It does so with the support of multiple stakeholders and partners, including the Canadian Coast Guard Auxiliary and National Defence. Through distress monitoring, communication, and search and rescue activities, the CCG SAR program increases the chances of rescue for people caught in dangerous on-water situations.

What we do...

- Coordinate and manage the response to marine SAR cases, rescuing approximately 3,000 people a year across Canada and supporting the protection of human life at sea;
- Assist the Department of National Defence (DND) with aeronautical and humanitarian cases;
- Operate in-shore rescue boats during the summer season; and
- Manage partnerships, which are essential for the efficient coordination of activities.

The Search and Rescue program is delivered by...

- **CCG Maritime Services staff**, who define and design the SAR system. They manage service provision by developing policies, standards, procedures, and guidelines. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. They also provide advice, guidance, and subject-matter expertise through marine-related intergovernmental and international fora.
  - CCG **SAR Mission Coordinators**, who are strategically located in three Joint Rescue Coordination Centres (JRCCs) and two Maritime Rescue Sub-Centres (MRSCs) across Canada. These coordinators provide 24/7 SAR coordination services during distress and safety incidents.
  - CCG **Inshore Rescue Boat (IRB)** crews, who provide a seasonal Inshore Rescue Boat service.
- **CCG Fleet**, which operates a total of 116 vessels, all with SAR responsibilities.
- **DFO Real Property Directorate**, which is responsible for the lifecycle management of lifeboat stations.
- **A partnership with DND**, which is the lead department for the coordination of all aeronautical and marine SAR and is responsible for the three JRCCs. The JRCCs are located in Halifax, Trenton, and Victoria, and they are staffed by both DND and CCG personnel. CCG operates two MRSCs, in St. John's and Quebec City, which report to a Joint Rescue Coordination Centre.
- **A partnership with the CCG Auxiliary**, which consists of some 4,200 volunteers using 1,165 vessels that are either individually owned boats or community vessels. The Auxiliary responds to approximately one-quarter of all marine SAR cases.

Who we serve...

The SAR program's main clients are mariners – including commercial fishers, recreational boaters, and commercial shippers – and the various associations and committees that represent them. The program generally engages with its clients to promote understanding and encourage feedback on the services CCG provides. This is achieved through existing media, such as the Canadian Coast Guard website and printed media. Clients are also informed through various fora, such as meetings of the Arctic Marine Advisory Board; the National and Local Marine Advisory Councils; the Atlantic, British Columbia, and Canadian Councils of Fisheries and Aquaculture Ministers; and the Recreational Boating Advisory Council. As a committed member of the National SAR Program, CCG also plays an active role in the Inter-departmental Committee on

SAR and works with its federal partners to share views among the organizations and their individual clients and stakeholders.

Looking Forward...

Continuing our efforts to ensure effective partnerships is essential to the future of the SAR program. In addition, the program needs to be constantly aware of innovations in technologies and management practices that can support more efficient operations. As such, improvements in information and knowledge management – for example, the identification of software system requirements in partnership with National Defence – will play a critical role in ensuring an efficient and effective service. There is also a need for Canada to develop and modify its SAR procedures to be consistent with international SAR processes, which are based on international SAR principles and practices. These changes will enhance the program's ability to work in partnership and measure its overall performance.

Commitment	Lead
2010-2011	
Identify software system requirements, in partnership with DND, for SAR Mission Management System (SMMS) and Système Informatisé SAR (SISAR) improvements.	DG, MS
Develop a National Standard Operating Procedures document based on the International Aeronautical and Maritime SAR (IAMSAR) Canadian supplement (Volume IV).	DG, MS

Search and Rescue Services

To achieve this result...	Measured this way...	With these targets...
Prevention of loss of life and injury	Percentage of lives saved vs. lives at-risk. This figure represents an operational benchmark, while the target – although operationally unattainable – is that CCG saves 100% of lives at risk	≥90%

Search and Rescue Services – CCG

Provides these services...	Measured this way...*	With these targets...
Search and rescue alerting, responding and aiding activities using public and private resources **	Percentage of primary SAR vessels meeting reaction time of 30 minutes or less for maritime incidents	99%

To achieve this result...	Measured this way...*	With these targets...
Coordination of Maritime SAR incidents**	Number of cases managed by Maritime SAR Program through the Joint Rescue Coordination Centre and the Maritime Rescue Sub-Centres, based on a benchmark of a 4-year average	6, 200

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Canadian Coast Guard Auxiliary

The Canadian Coast Guard Auxiliary (CCGA) is organized into six federally incorporated, not-for-profit volunteer organizations that parallel the five CCG regions, and one national corporation. The Minister of Fisheries and Oceans maintains a formal Contribution Agreement with each of the six CCGA corporations for related costs. The corporations are separate legal entities from the Government of Canada and work in close partnership with CCG.

Membership...

The majority of CCGA members are commercial fishers and pleasure boaters who donate their time and vessels to assist the CCG Search and Rescue Services program. The remaining CCGA members are volunteers from local communities who crew community-based dedicated response vessels 24 hours a day, 7 days a week.

The successful delivery of Auxiliary services depends on having competent and experienced people to discharge the various responsibilities of the Auxiliary. Training is the backbone of this organization. The Canadian Coast Guard assists the Auxiliary with the specialized SAR training necessary to become, and remain a member.

Canadian mariners have a strong tradition of responding to distress calls from vessels in trouble. Canada's vast and often inhospitable coastline, combined with unpredictable weather, has ensured that these situations are far from uncommon. It is not possible for the Canadian Coast Guard to cover the entire coastline, and for many decades CCG has relied on the Canadian Coast Guard Auxiliary to supplement its response efforts.

Every year, CCGA responds to approximately 25% of all maritime SAR incidents in Canada and is credited with saving approximately 1,000 lives each year. CCGA has approximately 4,200 members and access to approximately 1,165 vessels. Members' local knowledge, maritime experience, seafaring talents and professional conduct makes them one of Canada's greatest maritime assets.

Search and Rescue Services – CCG Auxiliary

Provides these services...	Measured this way...*	With these targets...
Support to CCG SAR activities **	Percentage of Maritime SAR incidents in which CCGA participated	25%

To achieve this result...	Measured this way...*	With these targets...
Maintain capacity to respond to SAR taskings **	Maintain the benchmark number of CCGA members	4, 266
	Maintain the benchmark number of CCGA vessels	1, 209

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Table 9: Search and Rescue Services Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	2,183.0	3,945.5	**6,128.6**
Maritimes	2,781.4	3,017.7	**5,799.1**
Quebec*	935.1	2,117.2	**3,052.3**
Central and Arctic	1,833.7	1,639.5	**3,473.1**
Pacific	1,750.4	4,081.0	**5,831.4**
National Capital Region	1,744.7	1,381.9	**3,126.6**
Direct Program Total	**11,228.2**	**16,182.9**	**27,411.1**
Coast Guard Fleet Operational Readiness Allocation	62,402.3	23,864.2	**86,266.5**
Lifecycle Asset Management Services Allocation	11,037.3	5,338.0	**16,375.3**
Total Service Cost	**84,667.8**	**45,385.2**	**130,053.0**

* *In the Quebec region, SAR services are co-delivered with Operational Services; the associated salary dollars are included in the Fleet Operational Readiness sub-activity.*

Key Initiatives

Search and Rescue Needs Analysis

A needs analysis of the Search and Rescue program has been conducted. The goals of the analysis, which included consultations and preparation of a report on CCG's findings, were to assess the SAR resources needed to respond to incidents in the maritime areas for which Canada has accepted responsibility and to validate the existing Levels of Service or propose changes.

Search and Rescue services are delivered to different service standards across Canada. The SAR needs analysis reviewed, updated, and assessed all factors (e.g., traffic, meteorological, and incident trends) affecting the existing Levels of Service. In 2009-2010, CCG developed an action plan that identified which recommendations can be implemented over the long term.

Commitment	In response to...	Lead
2010-2011		
Implement the approved 2010-2011 recommendations of the Search and Rescue Needs Analysis.	AG A-Base	DG, MS
2011-2012		
Implement the approved 2011-2012 recommendations of the Search and Rescue Needs Analysis.	AG A-Base	DG, MS

Search and Rescue Capability

We continue to strive to address the most pressing operational human resource requirements to ensure the continuity of our services and to respond to the needs of our employees. In this regard, we have undertaken an independent workload review for SAR Mission Coordinators to identify human resource requirements within the five Rescue Centres. This independent study, which was completed in 2009-2010, identified a number of recommendations from an external point of view. Reviewing these recommendations and developing an options analysis will form the basis for selecting and implementing the appropriate recommendations. We will finalize the workload analysis recommendations and focus on developing an action plan to establish the best approach to implementing the approved recommendations.

Commitment	Lead
2010-2011	
Assess the workload review recommendations, and develop an action plan to implement appropriate measures.	DG, MS
2011-2012	
Implement appropriate measures, as defined in the action plan.	DG, MS

Commissioner's Commendations Awarded to Glen Saunders, Matthew Taylor, and Evan Gilbert

While on Search and Rescue patrol in Conception Bay, the CCG Fast Rescue Craft (FRC) CCGS *298*, received a call from the Marine Rescue Sub-Centre to proceed immediately to Sow's Point, near Carbonear, Conception Bay. There, a 14-year old boy had fallen almost 40 metres down the cliffside into the ocean and had come to rest on the rocks. Because of the severity of the incident and the possibility of spinal damage, a full immobilization to a backboard had to be performed on the uneven rocky surface, which greatly challenged all of the rescuer's skills. It is challenging enough to perform such a procedure on a flat, stable surface and then transfer to an awaiting ambulance; to do so on the terrain where this team operated required diligence and dedication above and beyond any normal expectation of the performance of duty.

Left to right: John Butler (AC, NL), Glen Saunders. Missing from photo: Matthew Taylor and Evan Gilbert.

Environmental Response Services

Given the amounts of oil and other hazardous materials that are shipped to and from Canada by vessels operating in the North Atlantic, North Pacific, and Arctic Oceans, it is critical that the Canadian Coast Guard be an initial responder to all incidents, when required, in waters of Canadian interest. The Canadian Coast Guard is the lead federal response agency for all ship-source and mystery-source pollution spills into the marine environment, in waters under Canadian jurisdiction, and for the support of other countries under international agreements. The objectives of the Environmental Response program are to minimize the environmental, socio-economic, and public safety impacts of marine pollution incidents.

2009-2010 Accomplishments

Environmental Response Services...

- Participated in a joint exercise in the Arctic, Operation NANOOK 2009, with National Defence and other government departments.
- Responded to 1,014 reported spills in Canadian waters between January and December 2009.
- Completed the acquisition of first response equipment funded from the Health of the Oceans initiative.
- Participated in a large-scale exercise off of Southern Cape Breton, Nova Scotia, involving CCG and several federal and provincial governments and private industry partners.

Environmental Response (ER) Services works to ensure that there is a coordinated and capable response to both ship-source and mystery-source spills into waters of Canadian interest. Effective environmental response requires significant resources, strong partnerships, careful contingency planning, and trained personnel. The program is also a major contributor to the federal marine response capacity.

What we do...

- Establish an appropriate and nationally consistent level of preparedness and response service in Canadian waters;
- Monitor and investigate all reported marine pollution incidents in Canada and ensure an appropriate response. In this work, the program has a dual function:
  - Where the polluter has been identified and is willing and able to respond, the program advises the polluter of its responsibilities and, once satisfied with the polluter's intentions/plans, monitors the polluter's response and provides advice and guidance as required.
  - In cases where the polluter is unknown, unwilling, or unable to respond, the program assumes the overall management of the incident.
- Maintain efficient communications with the program's regulatory and policy leads and operational partners, including Transport Canada, Environment Canada, and the provinces.
- Ensure Environmental Response program personnel are trained to function under a nationally consistent emergency management system that deploys assets and resources appropriately and is capable of rapid and systemic escalation of responses in all regions of Canada.

The Environmental Response program is delivered by...

- **CCG Maritime Services** staff, who define and design environmental response operations. They manage the service by developing policies, standards, procedures, and guidelines. Through consultations and communication, they continuously plan, monitor, evaluate, and improve program performance. They also provide advice, guidance and subject-matter expertise through marine-related intergovernmental and international fora.
  - CCG **Environmental Response personnel**, who have extensive expertise identifying, analyzing, developing, and executing the preparedness and response activities essential to minimizing the environmental impacts of marine pollution events.
- **CCG Fleet**, which operates CCG's vessels in support of Environmental Response operations.

- Other **DFO sectors**, including Ecosystems and Fisheries Management, and Oceans and Science, which provide the relevant information and advice CCG to assist in the appropriate response to a spill.
- **Environment Canada (EC) and Transport Canada (TC)**, through Memoranda of Understanding. EC provides environmental and scientific advice during a response to a marine pollution incident and provides advice in the development and maintenance of contingency plans. In addition, EC ensures regulatory enforcement and compliance under the Fisheries Act. TC provides the regulatory framework for the Canada's Marine Oil Spill Preparedness and Response Regime, provides technical advice with respect to vessels, and ensures enforcement and compliance. TC is also responsible for the overall review of national capacity and for ensuring that appropriate resources are in place.
- **Response organizations**, which may assist polluters in their response; CCG monitors this response.
- **Ports and foreign governments**, through bilateral agreements, Memoranda of Understanding, and contingency plans that ensure all available resources can be used to mitigate the effects of pollution.

Who we serve...

Given its role of ensuring an appropriate and effective response to all ship-source and mystery-source pollution spills into waters under Canadian jurisdiction, the primary client for the program is the Canadian public in general, followed by the shipping industry, Transport Canada, Environment Canada, and other federal and provincial government departments and agencies that have environmental or emergency jurisdiction. The program generally engages with its clients to inform them of their roles and responsibilities and to promote understanding, as well as to encourage feedback on the services provided. The program also consults its clients on its service levels. This is achieved through various media, such as the CCG website and printed media; as well as through various fora, such as meetings of the National and Regional Canadian Marine Advisory Councils, Regional Advisory Councils and the National Advisory Council associated with Canada's Marine Oil Spill Preparedness and Response Regime; and various workshops, conferences, and exercises at the Regional, National and International levels.

Looking Forward...

Renewing the program's focus on preparedness and planning and working more closely with its federal partners will be key priorities for CCG in the coming years. This will require the reallocation of existing resources within CCG in a challenging fiscal environment. CCG will add strategic capability to the program in the form of new personnel with a focus on the key risks the program faces, as the program must be operationally ready to meet its objectives.

To ensure an effective, long-term Environmental Response (ER) Services program, the program will continue to review and update its current plans, Memoranda of Understanding, and agreements to ensure the program is able to deliver on Canada's statutory obligations with respect to marine pollution incidents. The program must continue to assess its current and future ability to deliver on these obligations, especially where there are multiple spills or clean-up might be prolonged.

In response to a recently completed internal audit, the Environmental Response program will continue the work begun under the Strategic Program Framework initiative to develop and implement its program framework. Such work will ensure better program governance and will, among other things, respond to the observations and recommendations of the internal audit. In addition, the Commissioner of the Environment and Sustainable Development is conducting a performance audit of pollution at sea that will probably be released in late 2010 or early 2011. It is expected that the audit will examine whether the federal government has taken reasonable actions and other measures to detect, prepare for, and respond to pollution from ships in Canada's ocean waters.

The program has initiated a review of the National Environmental Response Strategy. This Strategy will capture all of the elements necessary for Environmental Response Services to develop, implement, and demonstrate the preparedness and actions necessary to respond to ship-source spills on waters over which Canada has jurisdiction. Throughout the review of the Strategy, the program will continue to consult its partners.

Being prepared to respond to ship-source spills necessitates that ER Services maintain sufficient equipment and trained personnel. In 2009-2010, work continued to differentiate the ER equipment systems; such as unsheltered, on-shore, etc. This systems approach is being used to assess the appropriateness of CCG's current asset base and to identify future reinvestment requirements. The ER program, in coordination with Integrated Technical Services, will develop a National Equipment Strategy that will include life cycle and materiel management processes. Furthermore, work will continue on the development of a National Training Plan and a National Exercise Plan.

Commitment	Lead
2010-2011	
Add new resources and strategic capacity to the program.	DG, MS
Revise and implement a National Environmental Response Strategy, including the engagement of federal partners.	DG, MS
2011-2012	
Develop a National Equipment Strategy which will include Life Cycle and Materiel Management Processes.	DG, MS
Finalize the National Training Plan.	DG, MS

Environmental Response Services

Provides these services...	Measured this way...*	With these targets...
CCG managed spill responses **	Number of CCG responses to marine pollution incidents as On-scene Commander (OSC) (South of 60), based on a benchmark	620
	Number of CCG responses to marine pollution incidents as On-scene Commander (OSC) (Arctic Coverage Area; North of 60), based on a benchmark	10
Monitoring of private-sector response**	Number of CCG responses to marine pollution incidents as Federal Monitoring Officer (FMO) posture, based on a benchmark	470
Provision of expertise and resources to other government departments (OGDs) and organizations **	Number of CCG responses as Resource Agency, based on a benchmark	140

To achieve this result...	Measured this way...*	With these targets...
Economic, environmental and public safety impacts of marine pollution incidents are minimized (by investigating, assessing and responding to all reported cases of marine pollution incidents)	Percentage of reported ship-source spills where CCG acted as On-scene Commander, Federal Monitoring Agency or Resource Agency	100%

* *These are the performance indicators in the CCG Performance Measurement Framework.*

** *In accordance with* Levels of Service and Service Standards *(www.ccg-gcc.gc.ca/eng/CCG/WM_About_Ccg).*

Table 10: Environmental Response Services Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	975.6	400.9	**1,376.5**
Maritimes	1,020.2	260.3	**1,280.6**
Quebec	793.2	546.9	**1,340.1**
Central and Arctic*	1,273.0	608.3	**1,881.3**
Pacific	966.8	357.6	**1,324.3**
National Capital Region	1,157.2	728.0	**1,885.2**
Direct Program Total	**6,185.9**	**2,902.0**	**9,088.0**
Coast Guard Fleet Operational Readiness Allocation	609.3	233.0	**842.3**
Lifecycle Asset Management Services Allocation	460.2	222.6	**682.7**
Total Service Cost	**7,255.4**	**3,357.6**	**10,613.0**

* *Central and Arctic Region has a higher salary budget than the other regions because its area of responsibility is slightly larger (to cover the services provided in the Arctic). This cost also includes isolated post allowances that are not paid in other regions.*

Key Initiatives

Health of the Oceans

As part of Canada's commitment to conserve and protect Canadian waters, the Government of Canada, through Budget 2007, provided $2.2 million over three years to CCG to ensure Canada has the capacity to respond to oil spills in the Arctic. During 2009-2010, a Request for Proposals for the purchase of equipment and first-response systems was completed and the equipment was acquired ($1.5 million). In 2010-2011, we will complete the distribution of Environmental Response equipment packages in the Arctic.

Commitment	Lead
2010-2011	
Complete the distribution of ER equipment packages in the Arctic.	AC, C&A

Brigadier General M. G. Zalinski

CCG is playing a key role in addressing an oil-pollution threat posed by the wreck of the United States Army transport vessel *Brigadier General M. G. Zalinski*. This vessel sank in the Grenville Channel in British Columbia in September 1946, entombing a cargo of munitions and an estimated 700 tonnes of fuel. The wreck, which lay largely forgotten, began leaking fuel in 2003.

Following an assessment of the situation, we developed an action plan and costed all of the components of the plan. During 2009-2010, we further refined the action plan and identified options to address the pollution threat. A technical assessment of the condition of the vessel and the disposition of the remaining fuel will take place in 2010-2011. Further activities are subject to approval by CCG senior management and resource capacity.

Commitment	Lead
2010-2011	
Implement the action plan, subject to approval by CCG senior management and resource capacity.	AC, Pacific

Reinvestment in the Asset Base

Environmental Response Services expects to complete the implementation on the Arctic Environmental Response Equipment capital project, part of the Health of the Oceans initiative, in 2010-2011. We expect to spend $570, 000 to transport and deliver this equipment to the targeted Arctic communities, as well as to cover other related costs.

In the coming years, capital projects will emphasize the refurbishment and modernization of existing environmental response equipment. For a complete description of these projects and related expenditures, see Annex A (page 85).

Maritime Security

Canadians and foreign trading partners expect Canada to have a secure maritime transportation system. To this end, CCG leverages its capabilities, including extensive vessel identification and tracking systems, on-water capabilities and maritime expertise, to make a significant contribution to national and maritime security. Since 2001, Canada has relied on strong interagency cooperation to ensure the security of Canada's waters. Within this federal multi-agency environment, CCG has become an integral contributor to Canada's maritime security system, which in turn supports the federal enforcement and intelligence communities.

2009-2010 Accomplishments

Maritime Security...

- Implemented Canada's Long Range Identification and Tracking System.
- Acquired Secure Tactical Communications radios for CCG vessels.
- Provided personnel, systems and equipment in support of the 2010 Olympic and Paralympic Winter Games.
- Published the CCG Maritime Security Framework.

CCG is now a core federal maritime security partner and has received more than $250 million in national security funding over the past ten years. CCG provides value-added support to the achievement of federal national security objectives through enhancements to existing safety programs, including an increased fleet presence, the implementation of new vessel tracking sensors, and the construction of maritime security vessels.

What we do...

In support of national security, Coast Guard:

- Supports on-water enforcement and responsiveness by providing well-equipped crews and vessels both on a program basis (as in the case of the joint RCMP / CCG Marine Security Enforcement Teams) and on a contingency event basis (as in the case of the 2010 Olympic and Paralympic Winter Games).
- Provides valuable vessel identification and tracking information to other federal departments to enhance Canada's awareness of activities in its maritime domain. The recently launched Long Range Identification and Tracking (LRIT) System and the Automatic Identification System (AIS) are deemed by our partners to be critical to the enhancement of Canada's maritime domain awareness.
- Is a core partner in the two coastal interagency Marine Security Operations Centres (MSOCs), led by the Canadian Forces, and interagency Great Lakes – St. Lawrence Seaway MSOC, led by the RCMP, and provides crucial analyses of the movements of foreign and domestic vessels.
- Offers, as a key member of the maritime security community, operational and strategic support to its partners through various interdepartmental fora, such as the Interdepartmental Marine Security Working Group, led by Transport Canada.
- Is accountable for the provision of leadership and management of the national security file within DFO.
- Has established a Maritime Security group that works with CCG Headquarters and regional Fleet, Maritime Services and Integrated Technical Services representatives, as well as with DFO's program experts in Conservation and Protection, the Canadian Hydrographic Service, and Science, to assess DFO's ability to enhance its contribution to national security.

Looking Forward...

Although CCG's roles and responsibilities regarding the provision of support for maritime security are well understood within the current legislative framework, the interdepartmental community views CCG as a core maritime security partner and seeks our leadership in the delivery of initiatives and projects related to national and maritime security. Over the next five years and into the longer term, it is reasonable to expect that Coast Guard's support of maritime security activities will increase. The complexities associated with interdepartmental collaboration and evolving interagency initiatives will require significant ongoing policy work. CCG must continue to assess the implications of a shift from a solely maritime safety orientation to a culture that is influenced by both safety and national security considerations. The *CCG Maritime Security Framework* document and the forthcoming *CCG Contributing to Maritime Security* document will provide the context for CCG's contribution to Canada's national security objectives.

Commitment	Lead
2010-2011	
Develop the document *CCG's Contribution to Maritime Security.*	Deputy Commissioner (Operations)

With a clear accountability to deliver activities and information systems that are critical to Canada's maritime security, CCG will continue to enhance its security contribution to the federal enforcement and intelligence communities. As LRIT and AIS (new vessel tracking systems) are fully implemented, CCG will focus on ensuring the reliability of these systems and ensure the consistent and dependable flow of information to our partners.

The past five years has seen the establishment of dedicated CCG resources in ongoing maritime security and national security programs. The joint RCMP/CCG Marine Security Enforcement Teams in the Great Lakes and St. Lawrence Seaway area and a permanent DFO presence in the multi-agency Marine Security Operations Centres represent an evolution for CCG investments in maritime security from simply enhancing CCG activities to providing a collateral maritime security benefit for partners to making direct investments in ongoing interagency maritime security activities.

Maritime Security

Provides these services...	Measured this way...*	With these targets...
Provision of CCG maritime traffic information to Marine Security Operations Centres	Percentage of operational time versus total time to supply CCG maritime vessel traffic information, for usage at Marine Security Operations Centres	99.7%
Vessel support for the joint RCMP / CCG Marine Security Enforcement Teams program and any other vessels delivering maritime security support	Percentage of MSET patrols/service delivered vs. service planned, as per the Fleet Operations Plan	100%

To achieve this result...	Measured this way...*	With these targets...
Enhanced awareness of vessel movements within and approaching Canada's Exclusive Economic Zone	Availability of Long Range Vessel Identification and Tracking (LRIT) data feed from Canada's National Data Centre	Under development (LRIT system will begin operations in 2009/10)
Enhanced presence on Canadian waters	Percentage of total number of fleet operational days versus planned	100%

* *These are the performance indicators in the CCG Performance Measurement Framework.*

Table 11: Maritime Security Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	-	331.5	331.5
Maritimes	-	3.7	3.7
Quebec	1,160.6	989.0	**2,149.6**
Central and Arctic	1,834.0	2,384.6	**4,218.6**
Pacific	-	322.2	322.2
National Capital Region*	2,793.7	2,432.3	**5,225.9**
Direct Program Total	**5,788.3**	**6,463.3**	**12,251.5**
Coast Guard Fleet Operational Readiness Allocation	10,558.0	4,037.6	**14,595.6**
Lifecycle Asset Management Services Allocation	1,736.1	839.6	**2,575.7**
Total Service Cost	**18,082.4**	**11,340.5**	**29,422.9**

* *The Maritimes Security Program is managed nationally from the NCR region.*

Key Initiatives

Marine Security Enforcement Team

A key aspect of our increased role in supporting the federal maritime security agenda is the ongoing development of the joint RCMP/CCG Marine Security Enforcement Team (MSET) program in the St. Lawrence – Great Lakes region. The program characterizes Canada's multi-agency approach to maritime security by leveraging existing departmental capabilities to collectively and efficiently achieve a national security objective.

Currently, there are four interim MSET vessels that will be replaced over the next three years with the commissioning of four new Mid-shore Patrol Vessels. Law Enforcement Familiarization Training is provided to all crew members and specific equipment has been installed aboard vessels tasked to assist in law enforcement operations. We will continue to critically assess our MSET role and undertake the planning needed to efficiently address any personnel or infrastructure issues.

We will also continue to work with RCMP and DFO Conservation and Protection personnel to identify the hazards inherent in on-water enforcement operations. This will allow us to review and adjust our procedures and practices to ensure the greatest safety possible for CCG personnel and partner agencies.

Marine Security Operations Centres

DFO/CCG will continue to proactively participate in the multi-departmental Marine Security Operations Centres (MSOC) initiatives. The Canadian Forces leads this initiative on the coasts, while the RCMP provides the lead in the St. Lawrence Seaway - Great Lakes area. DFO contributes significant data on maritime traffic and analyzes this data to support the enhancement of maritime domain awareness on Canada's three coasts and in the St. Lawrence Seaway - Great Lakes area.

In 2010-2011, CCG will enhance this contribution through the full implementation of the Long Range Identification and Tracking (LRIT) System within the MSOCs. LRIT will allow MSOC partners to track vessels as follows: Canadian flag vessels – anywhere in the world; foreign vessels entering Canadian ports – anywhere up to 2,000 nautical miles from Canadian waters; and foreign vessels transiting through our coastal waters – anywhere up to 1,000 nautical miles from Canada's shores, including the Arctic.

Staffing of Coast Guard positions in both the Coastal and Great Lakes - St. Lawrence Seaway MSOCs, culminating in a 24/7 Coast Guard capacity within the three MSOCs, will be a priority in the coming years. National staffing processes began in 2009 and will continue into 2010. The goal is to place CCG MSOC personnel in accordance with the interim operating capacities established for the Centres.

Automatic Identification System (AIS)

AIS is a vessel tracking system that automatically provides updates on vessel positions and other relevant ship voyage data to a marine traffic operators. The purpose of AIS is to enhance Coast Guard's ability to identify and monitor maritime traffic in near-real-time with accurate and detailed information, allowing for an enhanced awareness of vessels approaching and operating in Canadian waters. In addition to the considerable expansion of vessel traffic data available to the maritime security enforcement and intelligence communities, there is the obvious safety benefit of avoiding collisions avoidance and being aware of vessel traffic.

The Canadian Coast Guard is responsible for the construction and operation of the shore-based component of the national AIS network, which consists of the installation of AIS shore-based stations at specific locations to track vessels within 40 to 50 nautical miles of the shore (called VHF AIS, or Very High Frequency AIS).

AIS shore infrastructure has been integrated within Marine Communication and Traffic Services (MCTS) Centres resulting in 19 MCTS Centres and over 100 radio sites being fitted with AIS systems. In addition to managing shipping traffic in general, MCTS will provide an AIS data feed to other government departments such as the Canadian Forces, as well as to the MSOCs on both coasts and in the Great Lakes.

Commitment	Lead
2010-2011	
Complete the AIS project as per the initial project plan and ensure full operational capability of the system.	DG, ITS
Implement national AIS support in the regions.	ACs

Long Range Identification and Tracking System (LRIT)

LRIT is an integral part of the International Maritime Organization's efforts to further enhance maritime security. Using satellite technology, LRIT allows for the tracking of SOLAS (International Convention for the Safety of Life of Sea) class vessels entering or transiting Canadian waters and of Canadian SOLAS class vessels operating internationally. Canada, through CCG, continues to lead the implementation of the international LRIT system and is working with national and international partners to ensure the long-term sustainability of this important vessel tracking system.

With LRIT, Canada is able to identify and track an estimated 1,000 additional ships a day. This data will significantly enhance Canada's maritime domain awareness and will be shared with partners in the Canadian security, enforcement, and intelligence communities. LRIT is also being used by CCG to successfully track foreign flag vessels engaged in Arctic voyages, with Canada's area of entitlement for data extending over the North Pole. LRIT will also benefit search and rescue by identifying vessels of opportunity in the area of a vessel in distress.

In fiscal year 2009-2010, CCG's leadership in the development of the international LRIT system was recognized both nationally and internationally, with several employees receiving awards, including a Distinguished Public Service Award from the Commandant of the United States Coast Guard.

Commitment	Lead
2010-2011	
Fully implement LRIT nationwide.	Deputy Commissioner, Operations

Reinvestment in the Asset Base

We are investing in critical surveillance and tracking systems in support of enhanced maritime security. We expect to spend $3.6 million on AIS/LRIT in 2010-2011, $25 million over the life of the project.

For a full description and a complete list of projects, see Annex A (page 85).

Fleet Operational Readiness

The Fleet Operational Readiness program involves the provision of safe, reliable, available, and operationally capable ships and helicopters with competent and professional crews ready to respond to on-water and marine-related needs. This Program Sub-activity involves fleet management, fleet acquisition, refit and maintenance, and the provision of fleet personnel. Through Fleet Operational Readiness, the Agency will ensure that the Government of Canada's civilian fleet meets the current and future needs of Canadians and the Government of Canada.

2009-2010 Accomplishments

Fleet Operational Readiness...

- Implemented Service Level Agreements with Science and Fisheries and Aquaculture Management with regular client follow-up.
- Completed the Architectural Design of the iFleet system. Developed and published an intranet-based Fleet Management E-manual.
- Finalized a standardized crewing matrix predicated on competency (crewing) profiles.
- Ensured a high level of CCG Fleet support to the security community for a successful 2010 Olympics in Vancouver.
- Substantially completed and updated the Fleet Renewal Plan.
- Published the CCG Vessel Maintenance Management Policy and Governance document.
- Completed assessments of vessel condition.

In addition to supporting most Coast Guard programs, as well as the Science and Fisheries Enforcement programs of DFO, the CCG fleet delivers civilian marine services on behalf of other federal government departments or in support of the maritime priorities of other federal agencies and organizations. Such clients include the Department of National Defence (DND), Environment Canada, the Royal Canadian Mounted Police (RCMP), the Department of Foreign Affairs and International Trade Canada, Transport Canada, Natural Resources Canada, and the Natural Sciences and Engineering Research Council of Canada. Detailed performance information is published annually in the CCG Fleet Annual Report.

What we do...

Provide operationally capable ships, helicopters and marine-related competencies and around 32,000 operational days per year to:

- Deliver on-water CCG services related to search and rescue, maritime security, environmental response, icebreaking, flood control, aids to navigation and waterways management;
- Respond to federal maritime priorities and natural or man-made emergencies as a key player in various activities mandated under the Federal Emergency Response Plan;
- Support DFO science activities and the conservation and protection of fishery resources; and
- Support any on-water, non-military needs of other government departments (OGDs).

The Fleet Operational Readiness program is delivered by...

- 116 vessels, 23 helicopters and over 2, 500 **Ships' Crew and Officers**;
- Round-the-clock operations in five regions, each with a **Regional Operations Centre (ROC)** that coordinates the tasking and deploying of vessels according to the Fleet Operations Plan; and
- The **National Coordination Centre (NCC)**, at Headquarters in Ottawa, which provides centralized coordination as needed.

Who We Serve...

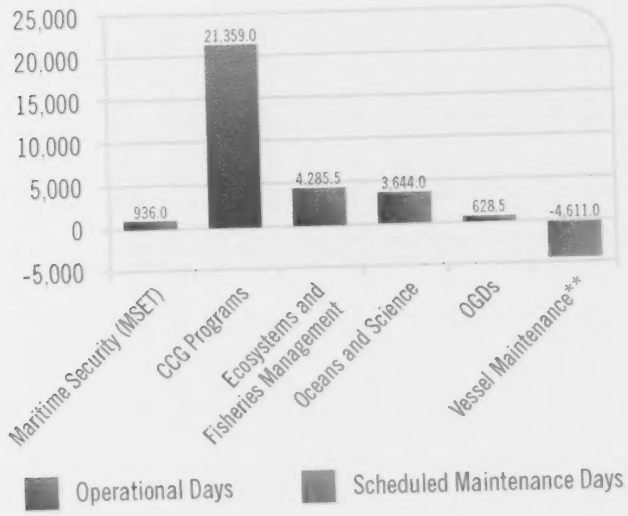
In general, Fleet Operational Readiness ensures that the required vessels, helicopters and maritime professionals are provided to meet the evolving needs of the government. In particular, Fleet Operational Readiness provides service to:

- CCG programs: Search and Rescue, Maritime Security, Environmental Response, Icebreaking, Aids to Navigation, Waterways Management, and Marine Communication and Traffic Services;
- DFO Oceans and Science Sector and Ecosystems and Fisheries Management Sector – Conservation and Protection; and
- OGDs with on-water needs, such as Natural Resources Canada, Environment Canada, DND, the Canada Border Services Agency, Public Safety Canada, the RCMP, and Transport Canada (TC).

Looking Forward...

In 2010-2011, through the implementation of its annual Fleet Operations Plan, CCG plans to distribute its services among Fleet clients, as shown in Figure 4:

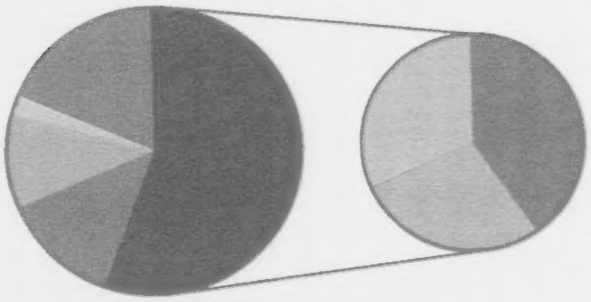
Figure 4: Planned Service by Program, 2010-2011 (in operational days and scheduled maintenance days**)*



* *All or part of a pre-determined 24 hour period (a day) where the vessel is available to deliver service to a client – excluding scheduled maintenance, refit or lay-up.*

** *The number of operational days unavailable to clients due to Fleet maintenance requirements (vessel life extensions, refits, and scheduled maintenance)*

Figure 5: Planned Vessel Costs by Program, 2010-2011



- 55.9% CCG Programs
- 13.2% DFO Oceans and Science (including Recoveries)
- 8.7% EFM/NAFO
- 1.9% OGDs
- 1.7% Maritime Security
- 0.5% Arctic and Other Recoveries
- 18.1% Vessel Maintenance

- 22.8% SAR/ER
- 15.4% Aids to Navigation
- 0.2% MCTS
- 17.5% Icebreaking Operations

In addition to delivering its own services to Canadians, CCG plans to support the programs of its clients as follows:

Oceans and Science

- In 2010-2011, we plan to provide 3, 644 operational days of vessel time and over 342 hours of helicopter time to DFO Oceans and Science. While science-related activities are conducted on many of our multi-tasked vessels, 16 vessels in the fleet are dedicated solely to the scientific endeavours of DFO and other Science-based organizations.

Ecosystems and Fisheries Management

- Conservation and Protection — In 2010-2011, we plan to provide 4,286 operational days of vessel time and over 273 hours of helicopter time to DFO Ecosystems and Fisheries Management – Conservation and Protection.
- Conservation and Protection activities supported by the Coast Guard include Northwest Atlantic Fisheries Organization (NAFO) patrols, support to the annual seal harvest, and fisheries enforcement.

Other Government Departments

- In 2010-2011, we plan to provide 629 operational days of vessel time and over 635 hours of helicopter time to government clients such as Environment Canada, Natural Resources Canada (NRCan), and the Natural Sciences and Engineering Research Council of Canada (NSERC) for additional science-related activities, and to DND, the Canada Border Services Agency, Public Safety Canada, the RCMP, and TC for other non-military activities.

Coast Guard Fleet Operational Readiness

Provides these services...	Measured this way...*	With these targets...
Operational Days delivered for: • CCG maritime services (such as Icebreaking, Search and Rescue, Aids to Navigation, Environmental Response, etc.); • DFO Science and Conservation and Protection program requirements; • Other federal government departments and agencies' needs	Number of operational days of programming assigned to a CCG client.	100%
Fleet Renewal - Major CCG Fleet vessel acquisition	Percentage of major capital project milestones attained	100%
CCG Fleet Assets are reliable to deliver CCG/OGD Programs	Percentage of days of planned availability / days of actual availability (availability is measured in the number of days on program)	95%

To achieve this result...	Measured this way...*	With these targets...
Safe and secure, effective and efficient provision of CCG fleet services for the Government of Canada	Percentage of service delivered vs. service planned for all programs (with a tolerance zone of 10%)	100%
	Number of hazardous occurrences, as per the safety management system, based on a 4-year average	207

* *These are the performance indicators in the CCG Performance Measurement Framework.*

Figure 6: National Distribution of Vessels and Helicopters, 2010-2011

Table 12: Fleet Operational Readiness Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total*
Newfoundland and Labrador	32,922.4	14,887.9	**47,810.3**
Maritimes	22,515.0	2,052.1	**24,567.1**
Quebec	24,354.3	6,016.2	**30,370.5**
Central and Arctic	19,388.4	1,873.3	**21,261.8**
Pacific	30,077.2	5,801.1	**35,878.3**
National Capital Region	45,982.0	36,385.3	**82,367.3**
Direct Program Total	175,239.3	67,016.0	**242,255.2**

* *Includes all operational readiness costs, exclusive of fuel and acquisitions*

Key Initiatives

L'Acadien II Action Plan

On March 29, 2008, the fishing vessel *L'Acadien II* capsized while under tow by CCGS *Sir William Alexander*. Of the six crewmembers, two were rescued and four lost their lives; one of whom has not been found. To respond to this tragic accident, an Integrated Action Plan was developed to respond to recommendations from investigations conducted by the Transportation Safety Board of Canada (TSB), the Royal Canadian Mounted Police (RCMP), the Department of National Defence (DND), and Rear-Admiral Roger Girouard (retired). Rear-Admiral

Girouard was appointed by the Minister of Fisheries and Oceans to independently examine the role and adequacy of CCG policies and procedures during the incident.

The Integrated Action Plan is being implemented. The commitments in the Plan are either on schedule or have been completed. Further detail and regular progress reports can be found on the CCG internet site.

Ongoing Improvements in Fleet Management

To sustain an operationally ready fleet capable of meeting service demands, Fleet management will continue to pursue internal efficiencies to optimize national consistency, organizational effectiveness, and linkages with regions and clients. With this in mind, the Coast Guard fleet will continue to examine how it conducts business and make the improvements needed to enhance service as part of the ongoing Service Level Agreement (SLA) pilot process. CCG Fleet will continue to invest in the improvement of its Fleet Activity Information System (FAIS), now known as iFleet (for details, see Annex A). The system captures the actual activities of Fleet vessels on an hourly basis and provides information to all levels of management. The system is essential to effective decision-making, planning, performance measurement, and reporting at all levels of management and to the public.

Improved Maintenance of the Existing Fleet

Subsequent to the 2007 Report of the Auditor General, the CCG Commissioner requested that a national review of CCG's vessel maintenance program be conducted to provide an assessment and validation of the lifecycle management strategy for its vessels, including supporting systems, procedures, and operations. The Vessel Maintenance Management Review (VMMR) resulted in 23 recommendations, out of which a three-year action plan was developed, and is now being implemented.

The activities to address the 23 recommendations include improving maintenance documentation such as plans and specifications, improving management processes and activities, clarifying roles and responsibilities, and improving CCG's ability to prioritize and plan maintenance of CCG vessels.

In 2009-2010, the CCG Vessel Maintenance Management Policy and Governance documentation, including the CCG Authorities, Accountabilities, Roles and Responsibilities Directive for Vessel Maintenance Management document, was approved by the Commissioner and published on the Vessel Maintenance Management intranet site. A number of vessel condition assessments were also completed, and the development of the Vessel Continuous Condition Survey Program was initiated. Finally, the concept of operations for the Centre of Expertise (CoE) for vessel maintenance management was approved in principle, and funding was secured to start the implementation of the CoE.

Commitment	Lead
2010-2011	
Fully operationalize the Centre of Expertise for vessel maintenance management by funding and beginning to staff Phase I of the VMMR capital-funded positions.	DG, ITS DG, Fleet
Put into practice the vessel maintenance management program process, in accordance with the *Vessel Maintenance Management Manual*, including the review process for the *Vessel Maintenance Management Manual* and the review and evaluation program for vessel maintenance.	DG, ITS
Implement the Vessel Continuous Condition Survey Program and deliver the vessels condition assessment report on the condition of CCG vessels.	DG, ITS
Finalize the five-year detailed plan for vessel maintenance for all vessels.	DG, ITS
Publish standard maintenance plans for ACVs and for 47-foot Motor Lifeboats (MLBs) and add them to CCG's Asset Management System.	DG, ITS
Implement standardized maintenance plans for ACVs and for 47-foot MLBs in accordance with maintenance plans in the Asset Management System.	ACs
Using MAINTelligence, monitor consistency in maintenance practices (based on maintenance plans) for type 1100 class vessels.	DG, ITS
Develop the standard general notes/services section for the refit specifications, as well as the general template to use when contracting refit activities.	DG, ITS

Human Resources Initiatives

The continuing development of Fleet Operational Readiness includes a variety of initiatives designed to support the fleet's workforce. Seagoing personnel (Ships' Officers and Ships' Crew) represent fifty-one percent of the total CCG workforce. Shipboard occupations and the related operational environment experienced by mariners are quite distinct from those encountered by CCG's shore-based personnel. Fleet's 24/7 operations require the use of different crewing systems based on variations of hourly averaging, where employees work approximately 40 hours per week. Ships remain at sea for extended periods of time; the work is demanding and is often performed under difficult physical conditions. Additionally, while seafaring has been predominantly a male career, Coast Guard is focusing efforts on recruiting more women into seagoing positions.

As a matter of ongoing management, CCG will continue to build on the human resources initiatives related to the fleet announced in 2007-2008 and on the Fleet Human Resources Development Program launched in 2008-2009, further strengthening a fully integrated, national fleet. In addition, building on research initiated in 2009-2010 on vision standards for seagoing personnel, CCG will develop an action plan to address Bona Fide Occupational Requirements for vision for seagoing positions that are linked to national and international regulatory requirements, ensuring a balance between the needs of those with eyesight disabilities and the safety of all those within the working environment. We will also implement the newly developed Ships' Crew Certification Program, which will provide incentives to qualified Ships' Crew to aspire to positions as Ships' Officers, thereby contributing to more effective succession of seagoing personnel. CCG Management Board (MB) will be presented with a comprehensive proposal for establishing an East Coast Small Craft Training Facility, and Fleet will continue its work to solidify the Operational Women's Network.

Commitment	Lead
2010-2011	
Develop detailed syllabi for each of the specific certificates modules and begin implementation of the Ships' Crew Certification Program.	DG, Fleet
Develop an action plan to address Bona Fide Occupational Requirements for vision for seagoing positions that are linked to national and international regulatory requirements.	DG, Fleet
Develop a comprehensive proposal for consideration by CCG MB for an East Coast Small Craft Training facility.	DG, Fleet
Continue to support the development of the Operational Women's Network.	DG, Fleet

Reinvestment in the Fleet Asset Base

The government has made significant investments in the fleet asset base. In recent federal budgets, the Coast Guard has received $1.4 billion to acquire up to 14 new large vessels. As we acquire new vessels, we continue to invest in our existing fleet to optimize its availability and reliability. Budget 2009 provided further support to the fleet asset base, providing $175 million ($85 million for 2010-2011) for various capital projects that can start immediately as part of the Economic Action Plan. Including these projects, Fleet will be investing in a total of 45 capital projects with a value of $250.0 million in 2010-2011.

For a full description and a complete list of projects, see Annex A (page 85).

Lifecycle Asset Management Services

To deliver on its mandate to ensure the safe use of Canadian waterways, the Canadian Coast Guard is required to maintain a large base of physical assets. These range from fleet assets (including 116 large and small vessels and air cushion vehicles) to equipment and other moveable assets, including more than 17,443 fixed and floating aids to navigation, as well as the electronic communication and navigation systems needed to support the 22 Marine Communication and Traffic Services Centres across Canada. To manage these assets in a cost-effective and client-centred manner, CCG uses a lifecycle asset management approach.

The Lifecycle Asset Management Services (LCAMS) program provides lifecycle engineering, acquisition, maintenance, and disposal services in support of CCG's non-fleet assets, and lifecycle engineering in support of CCG's fleet assets (vessel acquisition and maintenance is provided through the Fleet Operational Readiness program). The LCAMS program ensures that asset capability, reliability, availability and value are satisfied at minimum lifecycle cost, thereby improving the efficiency of CCG program delivery to Canadians.

What we do...

- Provide partner/client programs with advice and recommendations about the procurement or production/maintenance of assets or services;
- Prepare engineering drawings and specifications, acquire necessary assets or services, and build or set up requested technical solutions;
- Conduct the predictive, preventative and corrective maintenance actions required to preserve or restore the operating capability and reliability of assets, systems, and equipment; and
- Ensure the economical, safe, and environmentally responsible disposal of assets, systems and equipment.

The Lifecycle Asset Management Services program is delivered by...

- **CCG Integrated Technical Services (ITS)**. Over 950 engineers, technicians, technologists, trades people, managers, and support staff located in over 70 workshops and offices across the five CCG regions and national headquarters work to ensure that CCG assets are available and reliable to support key programs such as Fleet Operational Readiness, Aids to Navigation, and Marine Communication and Traffic Services.

Who we serve...

The LCAMS program's main clients are the Maritime Services and Fleet directorates. LCAMS also provides services on behalf of other government departments, such as Transport Canada's program for the inspection of ship radios.

Looking Forward...

Building on the recent LCAMS Program Evaluation, CCG will continue to strengthen its management practices and systems to achieve the LCAMS program outcome of having reliable CCG assets available for CCG programs. Looking ahead, the program will focus on strengthening relationships with CCG partners, and on improving its internal management processes and tools for program planning, operational planning and performance monitoring, and performance improvements. The program will also focus on having a dedicated and skilled workforce to manage and deliver LCAMS program services, as well as on ensuring sound stewardship of the financial resources and information needed to manage and deliver asset management services.

Lifecycle Asset Management Services		
Provides these services...	Measured this way...*	With these targets...
CCG Major Capital Asset Acquisition (non-Fleet)	Percentage of major capital projects milestones achieved on schedule	90%
	Re-investment rate into CCG non-fleet Asset base (rolling three year average)	5%
CCG Non-Fleet Assets Maintenance [i.e. Aids to navigation and MCTS]	Percentage of program/ service days delivered as per SLA, as influenced by maintenance	95%
To achieve this result...	Measured this way...*	With these targets...
CCG Programs/Services are operational within acceptable targets	Percentage of Service Level Agreements met	95%

* *These are the performance indicators in the CCG Performance Measurement Framework.*

Table 13: Lifecycle Asset Management Services Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total*
Newfoundland and Labrador	8,312.1	3,640.5	**11,952.6**
Maritimes	9,697.4	3,685.7	**13,383.1**
Quebec	9,115.2	5,613.8	**14,728.9**
Central and Arctic	10,103.3	3,079.4	**13,182.7**
Pacific	9,895.9	3,978.5	**13,874.4**
National Capital Region*	6,339.9	5,858.8	**12,198.7**
Direct Program Total	**53,463.7**	**25,856.7**	**79,320.3**

* *The NCR is responsible for the National Engineering function, as well as for the lifecycle management of several nationally used CCG information systems.*

Key Initiatives

Lifecycle Management System Guidance Manual

The Lifecycle Management System (LCMS) is a common, standard, structured approach to effectively managing CCG assets. This standard approach has an asset lifecycle perspective, integrates the efforts of all of the necessary technical disciplines, and is used to manage the total cost of ownership of an asset over its lifetime. A Lifecycle Management System Guidance Manual has been developed to document this standard approach and it is being used to provide training on lifecycle asset management within the CCG.

Commitment	Lead
2010-2011	
Publish the Lifecycle Management System (LCMS) Concept Manual.	DG, ITS
Deliver a minimum of 4 LCM training courses for HQ staff.	DG, ITS
Continue to deliver LCMS training sessions to regional staff.	ACs
Deploy an Asset Breakdown Structure (ABS) code generator for all vessel classes.	DG, ITS

Asset Management System

CCG's Asset Management System (AMS) makes possible efficient and comprehensive lifecycle management within CCG by:

- Providing a focal point for standardizing maintenance procedures and materiel management practices, thereby increasing efficiency and improving the quality of services;
- Allowing the tracking of maintenance history and identifying actual maintenance costs, thereby increasing efficiency and improving the quality of services; and
- Instituting a system for authorizing, scheduling, and tracking the maintenance work undertaken by CCG staff.

AMS consists of two component systems: MAINTelligence, which is used onboard large vessels, and MAXIMO, which is used for shore-based assets and station-based vessels.

Commitment	In response to...	Lead
2010-2011		
Install the inventory management module of Asset Management System onboard selected CCG vessels.	AG	DG, ITS
Deploy MAINTelligence on nine large vessels.	AG	DG, ITS
Deliver a minimum of four MAXIMO training sessions to HQ ITS staff.	AG	DG, ITS
Deliver MAXIMO training sessions to regional ITS staff.	AG	ACs

Improved Maintenance of the Existing Fleet

See the section 'Fleet Operational Readiness', on page 59, for further details on improving the maintenance of the existing Fleet.

Improved Maintenance of Existing Shore-based Infrastructure

ITS is committed to delivering asset management services as efficiently as possible. To do so, ITS strives to continuously improve its maintenance practices for the existing shore-based infrastructure. This, in turn, improves the availability and reliability of our shore-based infrastructure. In addition to developing the Long-term Investment Plan for shore-based infrastructure (page 21), ITS will focus on putting in place or updating the maintenance plans and manuals that are fundamental to ITS's ongoing commitment to provide planned maintenance services.

Commitment	In response to...	Lead
2010-2011		
Further develop and implement standardized engineering and maintenance manuals for selected CCG assets:	AG	DG, ITS
• Publish and implement an engineering and maintenance manual for marine and civil infrastructure.		DG, ITS ACs
• Develop an engineering and maintenance manual for electronics and informatics, including communications and training materials.		DG, ITS
2011-2012		
• Deliver standardized maintenance plans for selected shore-based infrastructure in accordance with strategy and procedures.		DG, ITS
• Implement standardized maintenance plans for selected shore-based infrastructure in accordance with overall strategies and procedures.		ACs
2012-2013		
• Publish and implementation engineering and maintenance manual for electronics and informatics.		ACs

Technical Solution Centres (Electronics)

The Technical Solution Centre (TSC) is a service delivery model that focusses on maintenance services provided to MCTS partners. TSC has three service delivery elements:

1. National Service Level Agreements (SLAs) establishing expectations for the Centres and the relationship between the partners/clients and ITS. The use of SLAs is intended to ensure that partners and clients are satisfied with our services.
2. A solutions centre in each region that allows partners/clients to raise service requests for the repair of assets/equipment; and
3. The ability within ITS to troubleshoot and remotely restore asset functionality.

TSC has been in operation in the Quebec Region and is being implemented in all other CCG Regions. Since the Quebec Region has been using this service delivery model for some time, the region will launch a pilot project for expanding the use of the TSC to manage services for ship-board electronic networks. By optimizing maintenance services, TSCs ensure program availability, program reliability, and partner/client satisfaction.

Commitment	Lead
2010-2011	
Publish a national Service Level Agreement for maintenance services.	DG, ITS
Start using Technical Solution Centres (TSCs) in the regions.	ACs
Install remote tools and diagnostics for ship networks as part of the initiative.	AC, QC
Complete all functionality for resetting remote MCTS sites.	AC, NL

Human Resources Initiatives

The Engineering Community

CCG has committed to develop an Engineering Community Workforce Solution Action Plan in order to address the Engineering Community recruitment and retention issues in the community. The objective of the Plan is to:

- Ensure that valuable corporate knowledge is transferred;
- Further develop skill sets and allow existing engineering personnel to grow within the organization; and
- Recruit university-trained and marine engineers.

Commitment	In response to...	Lead
2010-2011		
Implement the Engineering Community Workforce Solution Action Plan.	AG	DG, ITS DG, MCP

Reinvestment in the Asset Base

The Lifecycle Asset Management Services (LCAMS) program focuses on delivering asset management services for CCG assets during their four lifecycle phases: the concept, acquisition, in-service, and disposal phases. Managing the total lifecycle of CCG assets ensures greater asset reliability, availability, maintainability, and capability to meet CCG program requirements at optimal lifecycle cost. To provide these services, we invest in the infrastructure required to support the delivery of LCAMS, for example, the asset management information systems (AMS) and heavy equipment required to maintain other CCG assets.

The delivery of CCG programs to Canadians relies significantly on CCG assets such as ships, communication systems, and aids to navigation. Appropriate and timely investments and maintenance activities are therefore required to ensure the availability and reliability of CCG assets.

Because of the average age and deteriorated physical condition of the CCG asset base, important capital investments are being undertaken. The approved reinvestment strategy, based on asset lifecycle and engineering recommendations, is to improve or replace assets that have deteriorated to the point where the usual maintenance activities are insufficient to ensure their reliability and availability. This strategy will bring the existing asset base back to its operating baseline condition. In addition to improvement/replacement investments to address the physical condition of existing assets, CCG undertakes capital investments to modernize its asset base. Improving the physical condition of CCG's asset base and modernizing this base has a direct impact on the quality and extent of CCG service delivery and the associated ongoing operating and maintenance costs. For further information on the reinvestment strategies by individual CCG programs, refer to the appropriate CCG program description in this chapter.

In total, CCG expects to spend $296.4 million in 2010-2011 on reinvestment in the CCG asset base. For a full description and a complete list of capital investment projects for all CCG programs, see Annex A (page 85).

Canadian Coast Guard College

The Canadian Coast Guard College is the main operational and technical training facility for CCG. Its mission is to train and develop marine professionals in support of CCG-mandated programs in marine safety, security, and environmental protection. As CCG's training centre of expertise, the College aims to deliver quality, bilingual maritime training and services.

2009-2010 Accomplishments

Canadian Coast Guard College...

- Provided training to 142 students in the Officer Training Program
- Graduated 14 Ship's Officers and 17 MCTS Officers.
- Developed an MCTS Refresher Course which will be piloted in April 2010.
- Provided training to 96 Electronic Technologists and Ships Radio Instructors.
- Provided SAR/ER training to 119 personnel, 15 in the On-Scene Commander Course.
- Refurbished 96 student bedroom/living accommodations, replaced pool roof and created an Administrative Wing for offices and central registry, as part of infrastructure renewal.
- Strengthened Ship's Officer Recruitment efforts to support a September 2010 intake of 64 students – the largest class since 1987.
- Fostered knowledge, awareness and partnerships with Aboriginal Communities in the Maritimes to highlight the benefits of training and career opportunities for Aboriginals within the Canadian Coast Guard.

The College offers core national educational programs in four streams: CCG Officer Training Program (CCGOTP) and continued technical training for seagoing personnel, Marine Communication and Traffic Services (MCTS), Marine Maintenance and Equipment Training (MMET), and Rescue, Safety, and Environmental Response.

As a residential training facility, the College currently employs approximately 127 people, including 57 instructors and 70 full-time staff dedicated to academic support, general administration and management of the institution, hostelling, and property management.

Canadian Coast Guard College

Provides these services...	Measured this way...*	With these targets...
Qualified personnel. Graduates of Coast Guard Officer Training Plan (CGOTP)	Number of Graduates (officers)	23
Trained personnel. Certification training for MCTS Officers	Percentage of courses delivered / courses planned	100%
Trained personnel. Professional development training (MMET/ER/SAR)	Percentage of courses delivered / courses planned, in conjunction with Program Managers	100%

To achieve this result...	Measured this way...*	With these targets...
CCG has qualified Marine Professionals	Percentage of target delivered versus planned, as set out in the CCG HR Plan	100%

* *These are the performance indicators in the CCG Performance Measurement Framework.*

Table 14: Number of Cadets at the Canadian Coast Guard College

Officer Training Program – Ships' Officers	Total Number of Students*
Fiscal year 2010-2011	188 Students
Fiscal Year 2011-2012	229 Students
Fiscal Year 2012-2013	269 Students

* *Based on September 2010 class intake of 64 students per year.*

MCTS Program – Radio Operators	Total Number of Students
2010-2011	20*
2011-2012	19
2012-2013	17

* *Based on forecasted regional requirement.*

Table 15: Coast Guard College Resource Profile, 2010-2011 (thousands of dollars)

Region	Salary	O&M	Total
Canadian Coast Guard College	8,063.0	4,349.1	**12,412.1**
Direct Program Total	**8,063.0**	**4,349.1**	**12,412.1**
Coast Guard Fleet Operational Readiness Allocation	-	-	-
Lifecycle Asset Management Services Allocation	120.2	58.1	**178.4**
Total Service Cost	**8,183.2**	**4,407.2**	**12,590.5**

Key Initiatives

Canadian Coast Guard College Transformation Initiative

The Coast Guard College developed a Transformation Plan in 2009-2010 to renew the College's organizational structure to more effectively respond to the growing demand for Coast Guard training. Implementation of the transformation plan will continue into 2010-2011, ensuring that the necessary accountability and governance frameworks are in place to respond to operational training demands now and well into the future. Enhancements in language training capacity, simulation technology, and infrastructure will ensure the College has the tools necessary to enable Coast Guard to serve Canadians in their language of choice.

The College plans to increase the annual officer-cadet intake from 48 to 64 beginning in September 2010, to maximize the College's training capacity. This number may be adjusted from year to year based on the changing needs of the CCG workforce. In order to meet recruitment needs in 2009-2010, the College participated in career fairs and school visits, and advertised in various electronic and print media.

International Activities

Much of CCG's work has an international dimension. Because our maritime interests are shared with other countries, we work with related organizations at the international level to advance our common objectives. We achieve this by participating in a variety of international fora, providing expert advice to foreign governments on coast guard operational issues, and sharing best practices.

2009-2010 Accomplishments

International Activities...

- Hosted a delegation of the Chilean Navy interested in our operations, and in our expertise in the Arctic in particular.
- Hosted its fourth multi-departmental Summit with the United States Coast Guard, in Quebec City, Quebec.
- Led multi-departmental teams at the Summits of both the North Pacific Coast Guard Forum (held in Busan, Republic of Korea) and the North Atlantic Coast Guard Forum (held in Akureyri, Iceland).
- Along with other members of the North Pacific Coast Guard Forum, participated in a major maritime exercise, organized by the US Coast Guard and held in Puget Sound, to test and improve Forum members' ability to collaborate on the water.
- On behalf of the Government of Canada and a multi-departmental team, CCG hosted the 11th North Pacific Coast Guard Forum Experts' Meeting in Victoria, British Columbia.
- Hosted the 2009 summit between CCG and the USCG, which concluded with the signing of a Memorandum of Understanding on Ship Design and Construction.
- Participated in the annual Canada-United States Joint Marine Pollution Contingency Plan. CCG also participated in multiple joint SAR and ER exercises with the USCG.

Below are a few examples of our international activities:

- We lead a multi-departmental team at the North Pacific Coast Guard Forum (NPCGF), a six-nation organization with the objective of ensuring safe and secure waters in the North Pacific region by means of enhanced multilateral information sharing. Two meetings are held every year: the Experts Meeting, where working groups discuss a range of practical issues; and the Summit of Principals, when the lead representatives of the member countries review and approve the recommendations of the experts and establish the Forum's direction for the following year. Responsibility to host the meetings is rotational; 2010 is CCG's year to host. The Experts Meeting was successfully held in Victoria, British Columbia, and work is well under way to receive the principals in Vancouver in September 2010.
- CCG leads a similar multidepartmental team at the North Atlantic Coast Guard Forum (NACGF), which is a predominantly European Union-based 20-nation group. Its members are also focussed on achieving efficiencies in safety and security, but in the North Atlantic maritime region. CCG will lead the Canadian delegation to the September Summit in Norway and the Experts Meeting the following March, which will be hosted by France.
- Our work with international organizations, such as the International Maritime Organization (IMO) and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), is on-going. These efforts are aimed at developing rules, regulations, policy, and technology for safe and secure marine navigation. These organizations also develop and recommend technical standards for aids to navigation and automated identification systems (AIS) – areas that are among CCG's core responsibilities and activities here in Canada.
- As neighbours, CCG and USCG share not only maritime interests but also a number of clients and stakeholders. Our mutual efforts at continuous improvement include performing joint exercises on a regular basis. An annual summit of the leadership of the two Coast Guards provides ongoing guidance for this valuable and effective partnership. The spirit of partnership was furthered at the 2009 Summit with the signing of a Memorandum of Understanding on Ship Design and Construction. The two

organizations will share valuable technical and scientific information on research, design, analysis, development, testing, and evaluation of ship design and construction techniques. While CCG hosted the 2009 Summit, the USCG will receive the CCG-led multidepartmental team in Boston in 2010.

- As part of our philosophy of and commitment to sharing best practices to achieve safety and security in the maritime environment, CCG welcomes foreign coast guard delegations. In 2009, a number of senior officers with the Chilean Navy visited our headquarters to learn more about our activities and expertise in the Canadian Arctic.
- A Memorandum of Understanding between the CCG and the Korea Coast Guard signed in 2008 aims to promote enhanced cooperation and understanding between our organizations. An officer of the Korea agency is currently positioned in our Pacific Region.

Commitment	Lead
2010-2011	
Host the Summit of the North Pacific Coast Guard Forum in Vancouver, British Columbia.	AC, Pacific
Participate in the fifth annual CCG-US Coast Guard Summit in Boston.	Commissioner
Continue to provide a web platform for the North Atlantic Coast Guard Forum.	AC, NL
2011-2012	
Host the sixth annual CCG-US Coast Guard Summit.	Commissioner
2012-2013	
Begin planning efforts to host a major maritime exercise in 2013 involving other members of the North Pacific Coast Guard Forum.	AC, Pacific

(6) STEWARDSHIP / STRENGTHENING MANAGEMENT

2009-2010 Accomplishments

Review of the Working Relationship with DFO's Human Resources and Corporate Services

- Carried out a national review of issues related to the maintenance of Category II real property sites to identify current practices, and clarify roles and responsibilities.
- Developed national common practices regarding the Duty to Accommodate and Return to Work protocols.

Communication Protocols

- Reviewed and provided recommendations on communication protocols applied at Headquarters and throughout regions during emergency situations and other exceptional events.

Strategic Program Framework for CCG's Maritime Services

- Conducted a systematic examination of CCG's maritime services and developed action plans with specific initiatives covering a three-year period.

Stronger Canadian Coast Guard Identity

- Completed a review, including recommendations, to be used in a decision by Senior Management regarding MCTS and ER operational staff wearing the Coast Guard uniform.

Service Level Agreements with DFO Clients

- Signed a new Service Level Agreement between the Coast Guard and Human Resources and Corporate Services (HRCS) in June 2009.

Salary Management Information System

- Completed training and, application of procedures, is well underway.

Stand-by Arrangements

- Reviewed regional policies for stand-by arrangements across all directorates and analyzed data to determine best practices and recommend a strategy.
- Reviewed existing regional warehousing arrangements and analyzed data to determine best practices and recommend a service delivery model.

Good management is essential to delivering quality programs and service and achieving desired outcomes. Coast Guard is accountable for the management of its people, assets and resources, and the Agency listens carefully and responds to the findings of external and internal audits, assessments, reviews, surveys, and other evaluations of its management and stewardship.

As a significant part of DFO, Coast Guard works closely with the Department to strengthen areas identified for improvement in Treasury Board's annual assessments of management practices. In 2010-2011, Coast Guard will work closely with the Department on common management priorities related to people, assets, information and performance management. In addition, Coast Guard will continue to work toward addressing concerns in the 2007 Report of the Auditor General about inconsistent management practices across the country. Strengthened management will enhance national leadership and the effectiveness of our operations, and it will ensure that CCG operates as a truly national institution.

Consistent Business Management Practices

Review of the Working Relationship with DFO's Human Resources and Corporate Services

CCG's A-Base Review recommended that we assess our relationship with DFO's Human Resources and Corporate Services (HRCS) to ensure that consistent levels of support are provided to CCG across the regions. In 2008-2009, CCG and HRCS developed a new Service Level Agreement (SLA) that outlines a catalogue of services in the areas of Finance and Administration, Human Resources, Real Property, Safety and Security, and Information Management and Technology and provides performance measures where relevant. The new SLA is an indication of services we are migrating toward as recipients or service providers. In addition, a broad list of recommendations to improve the working relationship and service delivery between CCG and HRCS was articulated.

To ensure momentum on some of the recommendations, CCG and DFO agreed to focus on joint priorities. For instance, in 2009-2010, a national review of issues related to the maintenance of Category II real property sites has been carried out to identify current practices, clarify roles and responsibilities, and identify further work to be

conducted. In 2010-2011, CCG will focus on implementing the results of the key reviews of warehousing arrangements, duty to accommodate and return to work protocols, and stand-by pay arrangements.

Commitment	Lead
2010-2011	
Implement common practices for the Duty To Accommodate and Return to Work protocols across the Coast Guard.	AC, NL HRCS
Implement a policy for consistent stand-by arrangements across functions and regions and develop a national communications strategy to ensure consistent application.	ACs
Implement a warehousing service delivery model to align with the CCG/HRCS Service Level Agreement.	ACs

Communication Protocols

In 2009-2010, a CCG working group, with the help of interdepartmental partners, began a review of processes related to emergency preparedness in the CCG regions. This review aims to improve communication processes and protocols throughout CCG, and to provide upper management with the information needed to make quick and well-informed decisions while weighing the political and socio-economic impact of CCG emergency interventions.

Commitment	In response to...	Lead
2010-2011		
Implement recommendations after reviewing communication processes and protocols in the field of emergency preparedness.	A-Base	AC, Quebec

Strategic Program Framework for CCG's Maritime Services

To strengthen the effectiveness and efficiency of the Coast Guard maritime services, we have developed a Strategic Program Framework (SPF) that is based on the widely accepted federal program management principles outlined in the Government of Canada's Management Accountability Framework (MAF) (see Annex E). Since 2009, the Framework has been our central focus for systematically reviewing Coast Guard maritime services from a strategic perspective on an ongoing basis.

Using the Framework, we examined Coast Guard maritime services in 2009-2010. Based on this examination, tailored action plans that proposed specific initiatives over three years were developed. These action plans have allowed us to concentrate our efforts on priority areas. We also started to communicate with key partners of our maritime services to reaffirm our common understanding of our respective needs, capacities, roles, responsibilities, and accountabilities in meeting government objectives. In addition, we examined our Performance Measurement Framework and identified ways to improve on our performance indicators. Our SPF-based activities have strengthened our program management, and helped prepare the organization for the Strategic Review, led by Treasury Board, planned for 2010.

In 2010-2011, we will update the maritime services action plans and further enhance our collaboration with key partners. These activities are reflected in Section 5 of this Business Plan. We will also work with the programs serving external clients to examine clients' priority areas, programs' overall performance, clients' needs for the future; this will prepare us for the work ahead and for our Strategic Review. In addition, we will use the results of our 2009 examination, to analyze the operations of Coast Guard maritime services region by region, examining procedures and services to ensure that they are delivered nationally on a consistent basis.

In 2011-2012, we will conduct a second SPF-based examination of Coast Guard maritime services, focussing on specific elements of the Framework that will further improve the performance of our programs.

Commitment	Lead
2010-2011	
Examine priority areas, overall performance, and future needs for Coast Guard maritime services.	DG, MS
Analyze the operations of Coast Guard maritime services, region by region, and ensure that procedures and services are delivered nationally on a consistent basis.	DG, MS
2011-2012	
Complete an SPF-based systematic examination of all Coast Guard maritime services, and update each action plan accordingly.	DG, MS

Stronger Canadian Coast Guard Identity

While the red and white hulls of Coast Guard vessels are easily recognized by most Canadians, CCG is pursuing other ways to deepen Canadians' understanding of the scope and impact of our work, to strengthen our identity, and to celebrate the things that make CCG a proud national institution.

The absence of a national brand and national outreach and communications tools has blurred Canadians' recognition and understanding of the Coast Guard. Therefore, as first noted in the 2008-2011 Business Plan, we will solidify our brand and contribute to our national-institution objective by developing national standards for our printed publications, as well as other products that reflect our visual identity. In 2010-2011, we will develop a national standard for the look and feel, including graphics, for all CCG printed material. Also absent is a national, corporate strategy to internal communications; a strategy to enable a consistent approach to connecting with staff will be addressed in 2010-2011.

January 2012 will mark a significant milestone in the evolution of the Coast Guard. Fifty years after its establishment, CCG will celebrate its golden jubilee with a series of events and activities. A fitting approach and products to mark this important anniversary will be identified and developed in 2011-12.

Commitment	Lead
2010-2011	
Develop national standards for print publications and other products.	DG, IBMS
Develop a corporate internal communications strategy to ensure a consistent national approach to connecting with employees	DG, IBMS
2011-2012	
Develop a strategy and the requisite products to celebrate Coast Guard's 50th anniversary in 2012.	DG, IBMS

Efforts by the Canadian Coast Guard to increase its visibility and identity through a stronger national web presence continued during 2009-2010. The achievements of the previous year included compliance with government common look and feel standards, organization of the functional and regional sites, and the creation of a governance structure to ensure a viable and enduring web presence for CCG.

In 2009-2010, we implemented the web governance model by establishing a formal committee structure with roles and responsibilities that operates under the auspices of the CCG Management Board. In addition, web publishing processes are being refined and standardized by a CCG Web Implementation Working Group. Furthermore, we are creating a CCG web vision to guide us in maturing the CCG web presence. The web vision will be further defined and implemented in 2010 -2011.

Commitment	Lead
2010-2011	
Develop a CCG web vision and a proposal for a sustainable Internet presence for CCG.	DG, IBMS

Service Level Agreements with DFO Clients

In 2008-2009, the Canadian Coast Guard developed Service Level Agreements (SLAs) between Fleet and DFO Oceans and Science Sector* and DFO Ecosystems and Fisheries Management Sector** – Conservation and Protection. In 2009-2010, implementation of these SLAs began as a pilot project that included the development, testing, and modification of effective performance measures. In 2011-2012, the SLAs will be finalized for use on an ongoing basis. CCG already maintains formal service agreements with clients external to the Department (see page 60 for more information on our clients and the services provided).

To increase transparency and internal accountability, CCG in 2010-2011 will be looking to formalize the levels of service Fleet provides to Maritime Services (Aids to Navigation, Icebreaking, Search and Rescue, and Environmental Response).

Commitment	In response to...	Lead
2010-2011		
Develop a Service Level Agreement between Maritime Services and Fleet.		DG, Fleet DG, MS
2011-2012		
Finalize Service Level Agreements with DFO Oceans and Science* and DFO Ecosystems and Fisheries Management** for use on an ongoing basis, based on the outcome of the pilot.	A-Base AG	DG, Fleet
Implement Service Level Agreement between Fleet and Maritime Services.		DG, Fleet DG, MS

* *formerly DFO Science*
** *formerly DFO Fisheries and Aquaculture Management*

Commissioner's Commendation Awarded to Brenda Reynolds

During the past 10 years, Brenda Reynolds has been the driving force behind two major initiatives: the DFO/CCG Fleet merger and the development of the Early Conflict Resolution pilot projects. Both these initiatives affected Coast Guard Pacific Region and played an influential role nationally as Brenda shared her expertise, best practices and visions with her counterparts across the country.

Left to right: Vija Poruks (AC, Pacific), Brenda Reynolds.

(7) FINANCIAL INFORMATION

Status of Financial Management Initiatives in the Coast Guard

Sound financial management remains a high priority for the Canadian Coast Guard. We continue to dedicate significant effort and resources to ensuring ongoing improvements in the fields of financial planning, reporting, and monitoring.

To ensure fiscal responsibility, CCG has developed an activity-based budget allocation process and monthly forecasting/reporting exercise that is tailored to the Agency's operating environment. The execution of these exercises has evolved over time to ensure maximum efficiency and effectiveness. The output from CCG's financial management processes is widely used by senior management throughout the fiscal year for priority- and program-based decision-making.

CCG's planning and budgeting cycle was developed in full consultation with the regions and CCG directorates. As a result of the improved budget allocation process, managers are now informed of their budget figures at the beginning of the fiscal year, thus enhancing accountability and program delivery. The planning cycle has been further refined in recent years by implementing a more proactive approach to information sharing that focuses on better communication among staff in the regions and in Headquarters. This has led to more informed and priority-based decision-making and greater transparency in the directorates.

CCG monitors and reports its financial results on an ongoing basis. Each month, each region and directorate provides CCG's central resource management team with its most up-to-date forecasting and expenditure data. A challenge function ensues to ensure the most accurate and timely information is presented to senior management for decision-making purposes.

Highlights of CCG's financial management framework include:

- The implementation of activity-based management and activity-based budgeting processes. These new processes have improved the link between our allocation decisions and Treasury Board's Management, Resources and Results Structure (MRRS). As well, revisions to our Program Activity Architecture (PAA) have allowed us to more clearly quantify the cost of providing Canada with an operationally ready fleet.
- The development and implementation of standard financial practices in response to recommendations from the Auditor General. The goal of these standard practices is to ensure that CCG operates in a consistent manner across the country. Additional practices will continue be developed as required. In all cases, the standard practices are initiated in consultation with regional staff and are approved by senior management committees.
- The development of an Integrated Investment Planning (IIP) Framework. This has resulted in the first-ever CCG Integrated Investment Plan (IIP) for the 2010-2011 to 2014-2015 planning cycle. The new Framework is in line with Treasury Board's new policies on investment planning. The development of the IIP has provided CCG with an opportunity to tell its asset management and investment story in a consolidated and priority-based manner. The IIP assesses the ability of our assets to meet program needs now and in the future and demonstrates how we will reduce gaps in this ability through targeted and sound capital investments.

Operating Environment

CCG continues to adapt to overall economic trends and government-wide decisions that require a realignment of our financial management strategy. External decisions often place additional financial pressure on CCG and necessitate continuous attention by senior management. Despite the ongoing financial adjustments needed to remain within our budget allocation, CCG continually focuses on maintaining its advertised levels of services.

Notwithstanding the increase in major capital funding from the Economic Action Plan (EAP), the following external factors create challenges for the management of our operating budget.

- The CCG operating budget for fiscal year 2010-2011 has been decreased by approximately $2.8 million. This is due to a reduced Vote-Netted Revenue target at the CCG College, as well as an extension of government-wide budgetary reductions. These reductions stemmed from the expenditure review exercise outlined in Budget 2006 . This exercise tasked individual federal departments with reducing expenditures by improving operations and rigorously assessing the relevance and effectiveness of their programs.
- Budget 2010 also affected CCG's 2010-2011 operating budget. All departments must absorb salary increases over the next three years, and no increase in funding for these expenses will be provided.
- The introduction of government-wide restraint measures in Budget 2009 will continue for discretionary spending on travel, hospitality, and conferences. CCG will continue to monitor and further reduce these expenditures in 2010-2011.
- CCG and DFO will be subject to a Strategic Review (SR) in 2010-2011. The SR is a key element in the government's commitment to ensuring that our programs are relevant to Canadians and delivered efficiently. The SR process involves an assessment of direct program spending and aims to increase efficiency and effectiveness, enhance our role on core programs, and meet the priorities of Canadians.
- The impact of fuel-price fluctuations must also be taken into consideration. The risk of exceeding our core fuel budget remains high because of continuous volatility in fuel prices, as well as the acceptance of additional fuel-related risks in our SLAs with DFO Science and DFO FAM (Fisheries and Aquaculture Management). As a mitigation measure, fuel prices are monitored on an ongoing basis by a designated team within CCG. CCG spends approximately $40 million a year on fuel. Even a slight price increase puts significant financial pressure on the Agency.

Because of the global recession and its impact on the shipping industry, the revenue CCG collects for icebreaking and maritime navigation services decreased significantly in 2009-2010. As the Canadian economy begins to rebound in 2010-2011, it is expected that the revenues collected by CCG will increase from their recent low, thus reducing the negative impact the reduced revenues have had on the operating budget.

CCG's sound financial management practices ensure that the external factors that affect the Agency's bottom line are dealt with in a proactive and priority-based manner. Senior management's fiscal prudence and financial restraint enable CCG to continue to provide its mandated operations and maintain its advertised levels of service.

Assets and Liabilities

CCG uses a wide range of equipment and other physical assets to carry out its day-to-day activities. The CCG asset base is made up of 9,616 individual assets with values greater than $10,000. The assets can be divided into two broad categories:

- Program infrastructure assets: CCG manages $1.6 billion in shore based assets in support of the Aids to Navigation, Marine Communication and Traffic Services, and Lifecycle Asset Management Services programs, as well as the Coast Guard College. In addition to the facilities used to support the Agency's training needs, these assets consist of land and non-vessel water-based assets, fixed and floating aids to navigation, communication towers, cranes, vehicles, and program-specific systems.

CCG's program infrastructure includes facilities that are used every day to keep mariners safe in Canadian waters, including fixed aids to navigation, fog horns, communication centres, Differential Global Positioning System (DGPS) markers, and navigation buoys.

- Fleet assets: CCG's fleet consists of 116 vessels, 989 small craft, and 23 helicopters. These assets are used to support the programs and commitments of the Government of Canada through CCG, DFO, and other departments.

CCG's fleet includes a wide range of vessels, varying in size from heavy icebreakers that operate in Canada's Arctic and keep the St. Lawrence Seaway open year-round to shipping traffic, to small rigid-hulled inflatables that carry out rescue and patrols on inland waterways.

The depreciated book value of the entire asset base is only $573 million – the net book value of the fleet assets is $451 million and the remaining $122 million relates to equipment and other moveable assets. This is the most startling indication of how old our asset base is.

The replacement value of CCG's assets has increased from the previously reported amount of $11.6 billion in 2009-2010 to $14 billion in 2010-2011 – $12.5 billion relates to fleet assets and $1.6 billion relates to program infrastructure assets. The primary reason for this increase is a marked escalation in the replacement cost of new vessels. The realities of today's shipbuilding costs were incorporated into a pricing analysis undertaken as part of the Fleet Renewal Plan, which extensively measured the cost of replacing each of the fleet's essential vessels. Also, as one Polar Icebreaker is expected to cost in the neighbourhood of $800 million, a $12.5 billion replacement value for the entire fleet (measured in constant dollars and assuming the entire fleet is replaced today) is probably a more reasonable estimate than that previously reported.

In recent years, it has become apparent that the inadequate recapitalization of our fleet assets would result in the eventual inability of CCG to sustain its required levels of service. There have therefore been a number of financial infusions in recent federal budgets, such as funding for Mid-shore Patrol Vessels and a Polar Icebreaker, which will ensure that the book value of our fleet asset base increases over time and that required levels of service are maintained.

CCG's shore-based infrastructure continues to deteriorate. Although the number of assets in poor condition has reduced, many more assets or sites remain to be fixed. CCG must also respond to rapid and accelerating change, as technological advances are revolutionizing communications and CCG aids to navigation services are moving away from traditional physical aids toward modern electronic systems and information-based services. Significant strategic investments will be required for some years to enable CCG to move forward effectively on these fronts.

The continued deterioration of this asset base reflects the enormous challenge posed by Canada's size. The issue persists despite an annual funding increase of $22.3 million received in 2003 through the National Capital Spending Plan (NCSP). While there have been improvements, we still rely on outdated and fully depreciated shore-based infrastructure, as recapitalization has not kept pace with the rate of depreciation. The condition of our shore-based assets therefore continues to deteriorate, and technological advances have rendered much of our existing equipment obsolete and more costly to maintain than it was at the beginning of the previous planning cycle.

To communicate our asset management and investment planning strategy in a more integrated manner, CCG has embarked on an initiative to update its overall planning process for capital investment. The new Integrated Investment Planning process will ensure that our investment decisions are based on a full assessment of risks, priorities, and capabilities.

Impact of Recent Funding Injections

As previously noted, the three most recent federal budgets have significantly increased our capital budget, resulting in supplementary government investments in the Coast Guard of $1.7 billion since 2005.

Economic Action Plan (EAP) funding has provided a welcome short-term infusion of investment funding, which achieved the double benefit of generating economic benefit for Canada and addressing some outstanding investment requirements that were not affordable within available funding. CCG received $175 million in EAP funding for six investment projects. In accordance with EAP requirements, these funds must be spent in 2009-2010 and 2010-2011. CCG still has $93 million in funding to invest in 2010-2011, and we plan to spend all of it.

The additional funding for our fleet assets will produce tangible benefits for the programs we support and ensure that we are able to maintain the excellence in maritime service that our clients rely on.

Conclusion

The Coast Guard continues to implement and enhance financial management initiatives that will help us continue to organize our operations in a more businesslike and rational manner. The improved financial management framework has helped us better communicate our capacity and funding deficiencies, resulting in significant infusions of capital funding. The new funding will help stabilize our fleet infrastructure; however, it is becoming increasingly evident that the state of our shore-based infrastructure should also be addressed in the near term.

CCG has taken several measures to ensure a more priority-based allocation process, delivered through a strengthened planning, budgeting, and reporting framework. Nevertheless, we must continue to effectively manage our operating and investment budgets to ensure that the most pertinent programs are properly funded. By continuing to improve our financial management processes, CCG will ensure that it remains strong now and into the future.

Table 16 : CCG Derivation of 2010-2011 Budget Allocation

(Thousands of Dollars)	Salary	O&M	Sub-total	Capital	VNR	G&C	Total
2009-10 Total Budget	**300,782.5**	**168,971.6**	**469,754.1**	**256,406.0**	**(49,958.0)**	**5,038.0**	**681,240.1**
External Funding:							
2010-11 Efficiency Savings (PWGSC)	-	(862.8)	**(862.8)**	-	-	-	**(862.8)**
Science, FAM & NAFO Ships Funding	(38,696.0)	(20,225.9)	**(58,921.9)**	-	-	-	**(58,921.9)**
Real Property at College	-	(2,447.7)	**(2,447.7)**	-	-	-	**(2,447.7)**
Expansion of AIS into the Upper Great Lakes	55.7	425.7	**481.4**	(431.1)	-	-	**50.3**
NIF Adjustment	-	(259.5)	**(259.5)**	-	-	-	**(259.5)**
WMU (Contribution Agreement with TC)	-	75.0	**75.0**	-	-	(150.0)	**(75.0)**
RCMP Great Lakes MSOC	600.9	(95.4)	**505.5**	-	-	-	**505.5**
Economic Action Plan (EAP)	-	-	-	(90,000.0)	-	-	**(90,000.0)**
Economic Action Plan (EAP)	-	-	-	85,000.0	-	-	**85,000.0**
EAP Loan repayment from SCH	-	-	-	8,000.0	-	-	**8,000.0**
Fiscal Frmk not yet appropriated	-	-	-	(26,162.0)	-	-	**(26,162.0)**
Reprofile of Fiscal Frmk	-	-	-	16,562.0	-	-	**16,562.0**
MSPV (incremental)	1,723.0	(367.4)	**1,355.6**	30,821.0	-	-	**32,176.6**
Polar Icebreaker (incremental)	-	-	-	8,000.0	-	-	**8,000.0**
OFSV	-	-	-	2,650.0	-	-	**2,650.0**
OOSV	-	-	-	2,600.0	-	-	**2,600.0**
Vote Conversions:							
Science, FAM & NAFO Portions of Refit Vote Conversion	-	(6,032.8)	**(6,032.8)**	-	-	-	**(6,032.8)**
Temporary Salary Conversions	(1,028.0)	1,234.6	**206.6**	-	-	-	**206.6**
PSAT (Sec. Tact. Comm. Trial) - Fleet	-	(730.2)	**(730.2)**	-	-	-	**(730.2)**
PSAT (Sec. Tact. Comm. Trial) - Fleet	-	772.0	**772.0**	-	-	-	**772.0**
New Funding:							
Collective Bargainings - Round 25 (FI & SO)	2,060.0	-	**2,060.0**	-	-	-	**2,060.0**
Collective Bargainings - Round 26 (PA, EC & SV)	7,758.9	-	**7,758.9**	-	-	-	**7,758.9**
Reprofiles							
AIS ARLU Capital Reprofile	-	-	-	(8,435.5)	-	-	**(8,435.5)**
Sunsettings:							
Health of Oceans	-	-	-	(750.0)	-	-	**(750.0)**
IPY	(430.6)	(301.9)	**(732.5)**	-	-	-	**(732.5)**
Carry-forward	-	(5,003.2)	**(5,003.2)**	(11,323.0)	-	-	**(16,326.2)**
Other (3 items)	-	(462.5)	**(462.5)**		-	-	**(462.5)**
2010-11 Preliminary Main Estimates	**272,826.4**	**134,689.6**	**407,516.0**	**272,937.4**	**(49,958.0)**	**4,888.0**	**635,383.4**
External Funding:							
Science Fleet Funding (Net of Lay Day) *	18,654.0	6,168.7	**24,822.7**	-	-	-	**24,822.7**
Science Adjustment	-	10,447.0	**10,447.0**	-	-	-	**10,447.0**
FAM & NAFO Fleet Funding (Net of Lay Day)	15,921.7	6,923.1	**22,844.8**	-	-	-	**22,844.8**
Collective Bargainings - Round 27 (EL & RE)	980.5	-	**980.5**	-	-	-	**980.5**
Collective Bargainings - Round 28 (AV, CS, EX, NR, OM, PE, PL, RO, SO & SP)	1,933.4	-	**1,933.4**	-	-	-	**1,933.4**
Vote Conversions:							
Science Refit	-	4,050.0	**4,050.0**	-	-	-	**4,050.0**
FAM & NAFO Refit	-	1,756.0	**1,756.0**	-	-	-	**1,756.0**
Reductions:							
VICR	-	(181.7)	**(181.7)**	-	-	-	**(181.7)**
College VNR Shortfall	-	(2,000.0)	**(2,000.0)**	-	2,000.0	-	-

(Thousands of Dollars)	Salary	O&M	Sub-total	Capital	VNR	G&C	Total
2010-11 Notional Allocation	**310,316.0**	**161,852.7**	**472,168.7**	**272,937.4**	**(47,958.0)**	**4,888.0**	**702,036.1**
New Funding:							
Coastal MSOC	**995.7**	1,005.7	**2,001.4**	-	-	-	**2,001.4**
NIF	-	235.0	**235.0**	-	-	-	**235.0**
In Kind Contribution to Auxiliary	-	(33.0)	**(33.0)**	-	-	33.0	**0.0**
Supporting Emerging Fish. In Nunavut	-	375.3	**375.3**	-	-	-	**375.3**
Remission Order - Ontario Ferries	-	(43.0)	**(43.0)**	-	43.0	-	**0.0**
Student Funding	49.1	-	**49.1**	-	-	-	**49.1**
IMIT Funding position in Prescott	21.6	-	**21.6**	-	-	-	**21.6**
OFSV	-	1,500.0	**1,500.0**	-	-	-	**1,500.0**
Navaraes	812.7	179.0	**991.7**	-	-	-	**991.7**
Air Cushion Vehicle			**0.0**	10,000.0	-	-	**10,000.0**
Reductions:							
Funding to the Enablers	(1,711.5)	(448.7)	**(2,160.2)**	-	-	-	**(2,160.2)**
1.5% Salary funding reduction	(4,700.0)	-	**(4,700.0)**	-	-	-	**(4,700.0)**
Permanent transfer to Science - terminable allowance	(39.5)	-	**(39.5)**	-	-	-	**(39.5)**
Loan to Real Property	-	-	-	(5,000.0)	-	-	**(5,000.0)**
Conversions	(1,031.1)	1,237.4	**206.3**	-	-	-	**206.3**
Anticipated Carry-forward	4,700	-	**4,700**	**9,258.2**	-	-	**13,958.2**
2010-11 Budget Allocation	**309,413.0**	**165,860.4**	**475,273.4**	**287,195.6**	**(47,915.0)**	**4,921.0**	**719,475.0**

Table 17: Financial Allocations by PAA Sub-Activity, 2010-2011 (thousands of dollars)

PAA Sub-activity	Salary	Other Operations and Maintenance (O&M)	Total Operating	Major Capital	Grants and Contributions	Total Planned Spending**
Aids to Navigation Services	12,301.2	11,919.7	**24,220.9**	-	-	**24,220.9**
Waterways Management Services	2,997.5	6,434.5	**9,432.0**	-	-	**9,432.0**
Marine Communication and Traffic Services	33,197.3	6,360.9	**39,558.2**	-	-	**39,558.2**
Icebreaking Services	948.6	18,375.3	**19,323.9**	-	-	**19,323.9**
Search and Rescue Services	11,228.2	16,182.9	**27,411.1**	-	4,921.0	**32,332.1**
Environmental Response Services	6,185.9	2,902.0	**9,088.0**	-	-	**9,088.0**
Maritime Security	5,788.3	6,463.3	**12,251.5**	-	-	**12,251.5**
Coast Guard College	8,063.0	4,349.1	**12,412.1**	-	-	**12,412.1**
Coast Guard Fleet Operational Readiness *	175,239.3	67,016.0	**242,255.2**	229,395.7	-	**471,650.9**
Lifecycle Asset Management Services	53,463.7	25,856.7	**79,320.3**	57,799.9	-	**137,120.2**
Total	**309,413.0**	**165,860.4**	**475,273.4**	287,195.6	4,921.0	**767,390.0**

* *O&M includes fuel for FAM, Science & NAFO*
** *Excludes Vote-Netted Revenue (VNR)*

Table 18: Financial Allocations by Region, 2010-11 (thousands of dollars)

Region	Salary	O&M	Total
Newfoundland and Labrador	53,174.0	27,413.9	**80,588.0**
Maritimes	43,763.8	15,752.5	**59,516.2**
Quebec	44,662.8	23,247.3	**67,910.1**
Central & Arctic	40,154.9	16,046.1	**56,201.0**
Pacific	56,109.1	20,705.0	**76,814.1**
National Capital Region *	71,548.5	62,695.6	**134,244.1**
Total	**309,413.0**	**165,860.4**	**475,273.4**

* *Funding in NCR includes a total of $18M related to National Programs - these funds will ultimately be spent in the regions; distribution of those funds has not yet occurred.*

Table 19: Financial Allocations by Sub-Activity by Region, 2010-11 (thousands of dollars)

PAA Sub-activity	Newfound-land and Labrador	Maritimes	Quebec	Central & Arctic	Pacific	National Capital Region	National Programs	Total
Aids to Navigation Services	4,573.5	3,298.1	1,591.0	4,029.6	7,037.4	3,666.3	25.0	**24,220.9**
Waterways Management Services	38.0	1,751.9	4,825.9	842.7	1,096.6	876.9	-	**9,432.0**
Marine Communication and Traffic Services	6,267.1	6,312.7	6,787.7	6,284.9	11,213.1	867.8	1,824.9	**39,558.2**
Icebreaking Services	2,109.9	3,119.9	3,064.0	1,026.3	236.5	817.3	8,950.0	**19,323.9**
Search and Rescue Services	6,128.6	5,799.1	3,052.3	3,473.1	5,831.4	2,891.6	235.0	**27,411.1**
Environmental Response Services	1,376.5	1,280.6	1,340.1	1,881.3	1,324.3	1,885.2	-	**9,088.0**
Maritime Security	331.5	3.7	2,149.6	4,218.6	322.2	532.6	4,693.3	**12,251.5**
Coast Guard College	-	-	-	-	-	12,412.1	-	**12,412.1**
Coast Guard Fleet Operational Readiness	47,810.3	24,567.1	30,370.5	21,261.8	35,878.3	80,102.5	2,264.8	**242,255.2**
Lifecycle Asset Management Services	11,952.6	13,383.1	14,728.9	13,182.7	13,874.4	12,198.7	-	**79,320.3**
Total	**80,588.0**	**59,516.2**	**67,910.1**	**56,201.0**	**76,814.1**	**116,251.1**	**17,993.0**	**475,273.4**

Table 20: National Programs by Sub-Activity, 2010-11 (thousands of dollars)

PAA Sub-activity	Ice Reconnaissance	Helicopters	Automatic Identification System	Marine Security Operations Centres	New Initiatives Fund	Research and Development	Total
Aids to Navigation Services	-	-	-	-	-	25.0	**25.0**
Waterways Management Services	-	-	-	-	-	-	-
Marine Communication and Traffic Services	-	-	1,824.9	-	-	-	**1,824.9**
Icebreaking Services	8,900.0	-	-	-	-	50.0	**8,950.0**
Search and Rescue Services	-	-	-	-	235.0	-	**235.0**
Environmental Response Services	-	-	-	-	-	-	-
Maritime Security	-	-	-	4,693.3	-	-	**4,693.3**
Coast Guard College	-	-	-	-	-	-	-
Coast Guard Fleet Operational Readiness	-	2,264.8	-	-	-	-	**2,264.8**
Lifecycle Asset Management Services	-	-	-	-	-	-	-
Total	**8,900.0**	**2,264.8**	**1,824.9**	**4,693.3**	**235.0**	**75.0**	**17,993.0**

Table 21: CCG Vote-Netted Revenue Targets by PAA Sub-Activity, 2010-2011 (thousands of dollars)

PAA Sub-activity	Marine Navigation Services Fees	Icebreaking Services Fees	Marine Dredging Fee	CCG College Fees	Other	Total
Aids to Navigation	(4,728.0)	-	-	-	-	**(4,728.0)**
Waterways Management Services	-	-	(4,600.0)	-	-	**(4,600.0)**
Icebreaking Services	-	(2,426.1)	-	-	-	**(2,426.1)**
Search and Rescue Services	-	-	-	-	(75.0)	**(75.0)**
Marine Communication and Traffic Services	-	-	-	-	(250.0)	**(250.0)**
Coast Guard College	-	-	-	(1,700.0)	-	**(1,700.0)**
Fleet Operational Readiness	(12,609.5)	(9,217.2)	-	-	-	**(21,826.7)**
Lifecycle Asset Management Services	(10,321.5)	(2,030.7)	-	-	-	**(12,352.1)**
Total	**(27,659.0)**	**(13,674.0)**	**(4,600.0)**	**(1,700.0)**	**(325.0)**	**(47,958.0)**

Contributions from the St. Lawrence Seaway Management Corporation (SLSMC) to Fisheries and Oceans Canada for the provision of CCG aids to navigation within the Seaway are not collected through any of the fees identified in this table. Rather, SLSMC contributions are attributed to the government's Consolidated Revenue Fund and are not re-spendable by the Department.

Table 22: CCG Major Capital Budget and Planned Expenditure – Overview (thousands of dollars)

Table 22 summarizes Coast Guard's planned major capital spending over a five-year period. The planned expenditures are organized by major investment category to outline the distribution of CCG's long-term major capital spending (for additional information on individual capital projects see, Annex A).

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	TOTAL
Budget Overview						
A-Base Budget Envelope:						
Refit - Ships	54,400.0	54,400.0	54,400.0	54,400.0	54,400.0	272,000.0
Refit - Helicopters	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	28,000.0
Refit - Shore-based Infrastructure	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	125,000.0
Waterway Channel Restoration	515.0	3,815.0	3,815.0	3,815.0	3,815.0	15,775.0
Vessel Maintenance Management	3,200.0	6,500.0	6,500.0	6,500.0	6,500.0	29,200.0
Small Craft Replacement	5,000.0	5,000.0	5,000.0	5,000.0	5,000.0	25,000.0
Contribution to MCP - MSPV	-	6,096.7	8,403.3	-	-	14,500.0
Residual for Decision	35,685.0	22,988.3	20,681.7	29,085.0	29,085.0	137,525.0
Total A-Base Budget	**129,400.0**	**129,400.0**	**129,400.0**	**129,400.0**	**129,400.0**	**647,000.0**
B-Base Budget Envelopes:						
Major Crown Projects	60,571.1	201,435.7	235,170.2	167,155.8	250,675.0	915,007.8
Economic Action Plan	93,000.0	-	-	-	-	93,000.0
NAVAREAs	-	-	2,013.6	813.6	-	2,827.1
Major Crown Project Carry Forward	3,127.5	-	-	-	-	3,127.5
Total B-Base Budget	**156,698.6**	**201,435.7**	**237,183.8**	**167,969.4**	**250,675.0**	**1,013,962.4**
Budget Adjustments:						
A-Base Carry Forward	6,097.0	-	-	-	-	6,097.0
Loan to Real Property - Bedford Institute of Oceanography (BIO) Building	(5,000.0)	2,500.0	2,500.0	-	-	-

Total Budget	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	TOTAL
	287,195.6	**333,335.7**	**369,083.8**	**297,369.4**	**380,075.0**	**1,667,059.4**
Planned Spending						
Vessel Fleet						
Refit - Ships	**75,963.3**	**59,900.0**	**54,400.0**	**54,400.0**	**54,400.0**	**299,063.3**
Economic Action Plan	14,673.3	-	-	-	-	14,673.3
A-base	54,400.0	54,400.0	54,400.0	54,400.0	54,400.0	272,000.0
Unplanned Requirements	6,890.0	5,500.0				12,390.0
Refit - Helicopters	**7,050.0**	**5,600.0**	**5,600.0**	**5,600.0**	**5,600.0**	**29,450.0**
A-base	5,600.0	5,600.0	5,600.0	5,600.0	5,600.0	28,000.0
Unplanned Requirements	1,450.0					1,450.0
Vessel Maintenance Management	**3,200.0**	**6,500.0**	**6,500.0**	**6,500.0**	**6,500.0**	**29,200.0**
A-base	3,200.0	6,500.0	6,500.0	6,500.0	6,500.0	29,200.0
Small Craft Replacement	**15,654.0**	**5,000.0**	**5,000.0**	**5,000.0**	**5,000.0**	**35,654.0**
Economic Action Plan	9,254.0	-	-	-	-	9,254.0
A-base	6,400.0	5,000.0	5,000.0	5,000.0	5,000.0	26,400.0
Small Vessel Replacement	**34,921.0**	**10,060.0**	**8,578.5**	**24,000.0**	**26,207.0**	**103,766.5**
Economic Action Plan	31,458.0	-	-	-	-	31,458.0
Scheduled Replacement	1,463.0	6,360.0	8,578.5	24,000.0	26,207.0	66,608.5
Residual Ongoing Projects	2,000.0	3,700.0	-	-	-	5,700.0
Vessel Life Extension	**26,030.7**	-	**1,200.0**	-	-	**27,230.7**
Economic Action Plan	25,614.7	-	-	-	-	25,614.7
Unplanned Requirements	416.0	-	1,200.0	-	-	1,616.0
Vessel System/Technical Upgrades	**1,568.7**	**1,300.0**	**1,164.0**	-	-	**4,032.7**
Investment	179.2	-	-	-	-	179.2
Replacement	1,389.5	1,300.0	1,164.0	-	-	3,853.5
Total Vessel Fleet	**164,387.7**	**88,360.0**	**82,442.5**	**95,500.0**	**97,707.0**	**528,397.2**
Program Infrastructure						
Refit - Shore-based Infrastructure	**27,656.7**	**25,500.0**	**25,000.0**	**26,001.0**	**25,000.0**	**129,157.7**
A-Base	23,370.7	25,500.0	25,000.0	26,001.0	25,000.0	124,871.7
Residual Ongoing Projects	4,286.0	-	-	-	-	4,286.0
Waterway Channel Restoration	**900.0**	**3,815.0**	**3,815.0**	**3,815.0**	**3,815.0**	**16,160.0**
A-Base	900.0	3,815.0	3,815.0	3,815.0	3,815.0	16,160.0
System Infrastructure	**28,999.8**	**21,504.0**	**28,637.4**	**29,092.6**	**38,827.0**	**147,060.8**
NAVAREAs	-	-	2,013.6	813.6	-	2,827.1
Investment	15,860.6	10,581.0	6,154.8	3,390.0	1,926.0	37,912.4
Replacement	13,139.2	10,923.0	20,469.0	24,889.0	36,901.0	106,321.2
Total Program Infrastructure	**57,556.5**	**50,819.0**	**57,452.4**	**58,908.6**	**67,642.0**	**292,378.5**
Procurement of Major Vessels						
Vessel Procurement	48,938.4	194,336.7	230,690.3	156,466.7	241,175.0	871,607.1
Project Management	7,077.1	6,822.3	6,716.2	5,081.1	4,000.0	29,696.5
Core Capacity	6,455.6	6,373.4	6,167.0	5,608.0	5,500.0	30,104.2
Economic Action Plan	12,000.0	-	-	-	-	12,000.0
Total Procurement of Major Vessels	**74,471.1**	**207,532.4**	**243,573.5**	**167,155.8**	**250,675.0**	**943,407.8**
Total Planned Spending	**296,415.3**	**346,711.4**	**383,468.4**	**321,564.4**	**416,024.0**	**1,764,183.4**

Annex A: CCG Capital Expenditures

Experience has consistently shown that despite our best efforts, external factors often lead to project delays. Experience has also shown that because of the nature of our operations, there is a relatively long lead time for implementing capital projects. These two factors, combined with our desire to minimize capital budget (Vote 5) lapses, have led CCG's Investment Management Board to overprogram its capital vote by $9.2 million for 2010-2011.

The level of overprogramming is based on a number of factors, including CCG's experience with the various types of projects planned, communication with industry, communication with Public Works and Government Services Canada (PWGSC), and our internal capacity to implement the proposed investments. This approach will ensure that CCG proactively manages its capital budget and has high-priority investments ready to absorb the in-year slippage that inevitably occurs on large investment projects. The level of overprogramming is reviewed annually in the light of proposed investments so that the level of overprogramming balances the risk of funds lapsing and against the risk of having to delay expenditures to stay within budget.

The Canadian Coast Guard uses a wide range of equipment and other physical assets as it carries out its day-to-day activities. For example, search-and-rescue activities typically require rescue vessels or helicopters, as well as communications equipment; similarly, moving goods safely through Canadian waters depends on having reliable aids to navigation and may require the services of icebreakers.

The infrastructure required to support CCG activities falls into two broad groups:

- **Equipment and other moveable assets (Program infrastructure assets)**. These include information and operational systems, communications systems and equipment and infrastructure, communication and infrastructure such as radio towers, and radar sites, as well as aids to navigation such as buoys and beacons and environmental response equipment. These assets have an estimated replacement value of $1.6 billion.
- **Fleet assets.** These assets include 116 vessels — search and rescue lifeboats, fishery science vessels, patrol vessels, light and heavy icebreakers, etc. — and 23 helicopters. These assets have an estimated replacement value of $12.5 billion.

These assets need to be systematically maintained and eventually replaced for CCG to fulfill its mandate. This requires a long-term approach and significant financial resources, as capital expenditures account for a comparatively high percentage of our expenditures.

Capital expenditures for equipment and other moveable assets are grouped in terms of the CCG service involved; CCG capital expenditures for fleet assets are grouped in terms of the type of capital expenditure involved.

CCG sources of funding for capital expenditures include the following:

- Ongoing reference levels, used for replacing or extending the life of critical assets.
- Budget 2003 funding of an additional $47 million per year for the refurbishment of CCG assets. CCG has increased this budget by $23 million in refit funding, which was converted from the operating to the capital vote to consolidate all refit and refurbishment funding in one area.
- Transformational Plan funding of $16 million per year, received in 2006.
- Spending slippage related to some projects that may be carried forward into subsequent years.
- Major Crown Projects (MCP) funding. This is funding for new vessels, including mid-shore and off-shore vessels, as well as air cushion vehicles.
- Economic Action Plan funding of $175 million, provided in Budget 2009 over a two-year period.

As part of the new CCG Integrated Investment Plan (IIP), all capital funding has been consolidated into a single CCG Major Capital Budget. This total budget has been divided into A-Base Budget envelopes and B-Base Budget envelopes. The total CCG capital budget for 2010-2011 is $287.2 million.

The tables in this annex indicate the planned project spending for 2010-2011. Projects currently underway are listed first, followed by those approved in principle or awaiting funding.

Note: The figures in the following pages may fluctuate throughout the fiscal year, depending on the availability of equipment, repair facilities, and funding; for example, a Transport Canada inspection may trigger an emergency repair of a vessel, or a communication service or equipment related to search and rescue operations on a vessel or helicopter may break down and require immediate repair.

Summary

Type of Asset	Expenditures by PAA Sub-Activity	Example of Expenditures	Planned Spending, 2010-2011 (millions of dollars)
Equipment and Other Moveable Assets (Program infrastructure assets)	**Aids to Navigation**	Refurbishing/modernizing/replacing shore-based and floating aids to navigation	11.3
	Marine Communication and Traffic Services	Upgrading various communication equipment at MCTS Centres and remote sites	19.8
	Environmental Response Services	Investing in Environmental Response equipment	0.7
	Maritime Security	Investing in critical surveillance and tracking systems	6.0
	Waterways Management Services	Restoring the Canadian portion of the Great Lakes Connecting Channels	0.9
	Lifecycle Asset Management	Investing in a national operational network for CCG's operational systems/applications	3.1
Fleet assets	**Coast Guard Fleet Operational Readiness**		
	Acquisition or replacement	Acquiring new vessels	125.1
	Major repairs, refits, and refurbishments	Refitting and refurbishing vessels and helicopters	86.2
	Vessel life extension	Extending vessel life	26.0
	System enhancement	Modernizing simulators	17.3
Total			**296.4**

Details

Project Description	Total Estimated Cost (millions of dollars)	TEC Used	2010-2011 Forecast	TEC Remaining
Aids to Navigation				
Projects Under Way				
Minor Fixed Aids Site Replacement/Modernization (Phase 2). Replace, remove, relocate, redesign, and/or refurbish many critical short-range fixed aids to navigation and associated site infrastructure in all CCG regions to address high-risk items associated with structure failure and health and safety codes.	18.5	14.4	3.9	0.2
Major Fixed Aids Site Refurbishment/Modernization (Phase 2). Replace, remove, and/or refurbish many of the short-range major structures supporting shore-based fixed aids to navigation. Make a strategic investment in replacing/upgrading navigation aids with modern equipment involving the use of new technology.	18.4	14.3	4.1	0.0
Floating Aids Refurbishment/Modernization (Phase 2). Replace or refurbish floating aids to navigation and associated equipment to address codes and standards, health and safety, due diligence, and potential departmental liability issues in all regions.	17.5	12.2	3.4	1.9
Projects Approved in Principle, Awaiting Funding				
Differential Global Positioning System (DGPS) Refurbishment. Replace and/or refurbish electronic equipment and site infrastructure at DGPS sites across Canada.	30.5	0.0	0.0	30.5
Minor Fixed Aids Site Refurbishment/Modernization (Phase 3). Replace, remove, relocate, redesign, and/or refurbish many critical short-range fixed aids to navigation and associated site infrastructure in all CCG regions to address high-risk items associated with structure failure and health and safety codes.	17.5	0.0	0.0	17.5
Major Fixed Aids Refurbishment/Modernization (Phase 3). Replace, remove, and/or refurbish many of the short-range major structures supporting shore-based fixed aids to navigation. Make a strategic investment in replacing/upgrading navigation aids with modern equipment involving the use of new technology.	16.4	0.0	0.0	16.4
Floating Aids Refurbishment/Modernization (Phase 3). Replace or refurbish floating aids to navigation and associated equipment, in many cases involving new technology.	18.0	0.0	0.0	18.0
Helicopter Landing Pads at Aids to Navigation Sites. Construct approximately 86 new helicopter landing pads at priority identified sites in Newfoundland and Labrador to ensure safe access to established aids to navigation locations.	7.2	0.0	0.0	7.2
Marine Communication and Traffic Services				
Projects Under Way				
MCTS Communications Control System (CCS) Equipment Replacement. Replace Communications Control System (CCS) equipment at 22 MCTS Centres, along with the associated consoles, radio remote control equipment at remote sites, and two simulators at the new technical training facilities required at the CCG College, in Sydney, NS. Use of the latest digital technology will enable multifunction switching and simultaneous communications on different radio frequencies.	47.8	3.7	3.2	40.9
MCTS Communication Towers Refurbishment (Phase 2). Refurbish to baseline condition those MCTS communication towers identified as the highest priority in April 2006. The towers identified are those that do not meet current operational requirements or are at high risk of failure due to rust-out and overloading.	18.7	14.1	3.8	0.8
MCTS Communication Site Refurbishment (Phase 2). Refurbish existing MCTS communication sites used by CCG across Canada to baseline condition. Work includes replacing or refurbishing equipment, buildings, trailers, roads, and transmission lines, and replacing fuel tank systems and spill containment structures and physical security to meet national and regional standards.	18.6	15.9	2.7	0.0

Project Description	Total Estimated Cost (millions of dollars)	TEC Used	2010-2011 Forecast	TEC Remaining
Communications Systems Refurbishment (Phase 2). Refurbish communications systems and associated infrastructure, including MF-HF receivers and transmitters, VHF-DF antenna systems and satellite links, radars, UPS, and test infrastructure in all regions. It also includes consolidating the Prince Rupert Microwave Network by adding two microwave sites and includes four microwave links.	17.9	7.3	3.8	6.8
Very High Frequency (VHF) Radio Refurbishment. Refurbish to baseline condition the MCTS very high frequency (VHF) radios, in all regions, that are obsolete or at risk of failure.	17.6	16.0	0.9	0.7
Arctic Telecommunication Towers Refurbishment. Bring the Arctic telecommunications network/infrastructure back to baseline condition, by replacing obsolete HF, MF, VHF, UHF, and satellite communications equipment.	16.7	14.2	1.4	1.1
MCTS Replacement of the Vessel Traffic Operator Support System (VTOSS) in the Pacific Region. A version of the National Integrated Information System on Marine Navigation (INNAV) that includes the interface for the Automatic Identification System (AIS) will be upgraded to incorporate the essential operational functionalities that are required by the Pacific Region. This upgraded version of INNAV, as well as the required new equipment, will be implemented in the Pacific Region only.	4.7	3.6	1.1	0.0
MCTS Tofino Radar Refurbishment. Replace the existing "dark room" radar displays with digitized daylight displays, and complete other minor renovations and infrastructure modifications to enable daylight operations at the Tofino MCTS Centre in the Pacific Region.	3.0	2.8	0.2	0.0
Very High Frequency (VHF)/Digital Selective Calling (DSC) in the St. Lawrence and Great Lakes Basin. Install shore-based Global Marine Distress and Safety System (GMDSS) VHF/DSC at select MCTS Centres and Remote Control Outlets (RCOs) along the Great Lakes (Central and Arctic Region) and the St. Lawrence River (Quebec Region).	8.5	7.9	0.3	0.3
MCTS Transmitter/Communication Systems Refurbishment (Phase 3). Refurbish MCTS transmitters and electronics. Project includes creation of Technical Solution Centres in each region.	17.7	5.1	2.2	10.4
Projects Approved in Principle, Awaiting Funding				
MCTS Information Logging System. Replace the outdated Message Data System and automatic message broadcasting system (MDS/NAVTEX) with a new MCTS Logging System at 22 MCTS Centres.	4.6	0.0	0.3	4.3
Very High Frequency-Direction Finding (VHF-DF) System Refurbishment. Refurbish to baseline condition the very high frequency direction finding system, in all regions, that are obsolete or at risk of failure. Additional VHF-DF coverage may also be provided.	10.0	0.0	0.0	10.0
MCTS National Vessel Traffic Management Information System (VTMIS) Replacement. Replace the National Information System on Marine Navigation (INNAV) by a VTMIS that would integrate all Maritime Services-approved capabilities, mandates, and data requirements.	39.2	0.0	0.0	39.2
MCTS Communication Towers Refurbishment (Phase 3). Refurbish to baseline condition those MCTS communication towers identified as the highest priority. The towers identified are those that will be or are at high risk of failure in the near future due to rust-out and overloading.	18.1	0.0	0.0	18.1
MCTS Communication Site Refurbishment (Phase 3). Refurbish existing MCTS communication sites used by CCG across Canada to baseline condition. Work includes replacing or refurbishing equipment, buildings, trailers, roads, and transmission lines, and replacing fuel tank systems and spill containment structures and physical security to meet national and regional standards.	18.1	0.0	0.0	18.1
Environmental Response Services				
Projects Under Way				
Arctic Environmental Response Equipment (Health of the Oceans - HoTo). Invest in environmental response equipment for the Coast Guard's Arctic Environmental Response capability.	2.0	1.3	0.7	0.0
Projects Approved in Principle, Awaiting Funding				
Environmental Response (ER) Equipment Refurbishment.. Refurbish CCG ER equipment by returning the assets to baseline condition.	17.9	0.0	0.0	17.9

Project Description	Total Estimated Cost (millions of dollars)	TEC Used	2010-2011 Forecast	TEC Remaining
Maritime Security				
Projects Under Way				
Automatic Identification System (AIS). Implement a national VHF AIS Service and a Long Range Identification and Tracking Service in Canada to enhance marine security and improve the safety of navigation in Canada.	25.0	16.5	6.0	2.5
Waterways Management Services				
Projects Approved In Principle, Awaiting Funding				
Restoration of the Great Lakes Connecting Channels. Restore the charted depths and full design width of the Canadian portion of the channels on the Lower Detroit River (e.g., the Livingstone and Amhertsburg Channels); Lake St. Clair area (e.g., St. Clair River, South East Bend, and Lake St. Clair channels); and St. Mary's River. This will allow ships on the Great Lakes/St. Lawrence Seaway System unrestricted, safe, and efficient passage between the upper and lower Great Lakes.	19.0	0.0	0.9	18.1
Lifecycle Asset Management				
Projects Under Way				
Configuration Management and Technical Data Management System (CMTDMS). Develop and implement a system to support enhanced material acquisition and lifecycle management through a nationally managed information infrastructure.	10.4	1.1	0.8	8.5
MAINTelligence Infrastructure Refurbishment. Refurbish and standardize the MAINTelligence automated application system, which serves as the repository for the inventory information necessary to enable the national lifecycle management of the Coast Guard's vessel-based assets. MAINTelligence is currently operating on 52 large CCG vessels and at the CCG College.	2.8	1.4	1.4	0.0
Heavy Equipment Refurbishment. Refurbish and replace the heavy equipment required for the delivery of CCG program services, including 30-ton mobile cranes, mobile heavy-lifting equipment, and transportation vehicles at CCG bases.	18.5	1.0	0.1	17.4
Projects Approved in Principle, Awaiting Funding				
Asset Management System (AMS) "Bridge". Plan, design, and implement the information technology infrastructure and application components that will be necessary to integrate the vessel-based asset maintenance information database (MAINTelligence system application) and the shore-based asset maintenance information database (MAXIMO system application). This will provide complete and comprehensive management information regarding the maintenance of both shore-based and large vessel-based CCG assets; it will also enable the Lifecycle Asset Management Services program to better deliver its services.	1.9	0.0	1.0	0.9
CCG Operational Network (OpNet). Develop and implement a national operational network, including the required hardware and related software that will operate all of the existing CCG operational systems/applications on one standard national network.	7.5	0.0	0.0	7.5

Project Description	Total Estimated Cost (millions of dollars)	TEC Used	2010-2011 Forecast	TEC Remaining
Coast Guard Fleet Operational Readiness				
Budget 2009 Economic Action Plan In its 2009 Budget, the Government of Canada announced that it was providing CCG with $175 million as part of the government-wide Economic Action Plan. The specific planned projects are as follows:				
Projects Under Way				
Acquisitions				
Near-Shore Fisheries Research Vessels				
• **Near-shore Fishery Research Vessels.** Acquire two 22-metre Near-shore Fishery Research Vessels to replace CCGS *Opilio* and CCGS *Calanus II*.	23.9	1.5	18.7	3.7
• **Near-shore Fishery Research Vessels.** Acquire one 25-metre Near-shore Fishery Research Vessel to replace CCGS *J.L. Hart*.	16.1	1.3	14.7	0.1
SAR Lifeboat Replacement Plan				
• **Five 47-foot Motor Lifeboats (Cape Class)**	20.0	8.0	12.0	0.0
Small Craft Acquisition Plan (SCAP)				
• **86 Small Craft: Fast Rescue Craft (FRC), Rigid Hull Inflatable (RHIB), and small work boats**	14.5	8.8	4.6	1.1
Environmental Response (ER) Barges				
• **Environmental Response Barges**	10.0	2.2	6.1	1.7
Vessel Life Extensions				
CCGS *Bartlett*	22.0	16.6	3.6	1.8
CCGS *Tracy*	20.0	11.7	2.2	6.1
CCGS *Limnos*	10.6	8.5	1.9	0.2
CCGS *Cape Roger*	12.6	2.0	10.2	0.4
CCGS *Tanu*	12.6	0.4	7.7	4.5
Refit – Ships and Helicopters				
• **Accelerated Vessel Refits (35)**	38.0	19.9	16.6	1.5
Acquisitions and Replacements				
Projects Under Way				
Off-Shore Fisheries Science Vessels (OFSV)				
• **Offshore Fisheries Science Vessels (OFSV).** This initiative will replace four vessels currently in use by CCG: CCGS *Alfred Needler* or CCGS *Wilfred Templeman*, CCGS *W.E. Ricker*, and CCGS *Teleost*.	244.0	6.3	2.7	235.0
Offshore Oceanographic Science Vessels (OFSV)				
• **Offshore Oceanographic Science Vessel (OOSV).** This initiative will replace one vessel currently in use by CCG: CCGS *Hudson*.	144.4	1.0	2.6	140.8
Mid-Shore Patrol Vessels (MSPV)				
• **Mid-shore Patrol Vessels (MSPV).** Nine Mid-shore Patrol Vessels will be constructed and delivered for use in CCG's Maritime Security program and Fisheries and Aquaculture Management's Conservation and Protection program.	227.0	25.8	37.3	163.9

Project Description	Total Estimated Cost (millions of dollars)	TEC Used	2010-2011 Forecast	TEC Remaining
Air Cushion Vehicles (ACV)				
• **Air Cushion Vehicle (ACV).** This initiative will replace CCGS Penac at the Canadian Coast Guard Sea Island Hovercraft Base in Richmond, British Columbia. It will provide for ongoing search and rescue coverage in the area, allowing CCG to continue fulfilling its mandate and maintain current levels of service.	27.3	0.0	10.0	17.3
Near-Shore Fishery Research Vessels				
• **CCGS *Shark* Replacement.** Construct and deliver to Central and Arctic Region a vessel to meet Science program requirements as a replacement for CCGS *Shark*.	5.9	3.6	0.4	1.9
• **CCGS *Pandalus III*** – Construct and deliver to Maritimes Region a vessel to meet Science program requirements as a replacement for CCGS *Pandalus III*.	4.4	3.4	0.9	0.1
Small Craft Acquisition Plan (SCAP)				
• **SCAP** (all regions)	15.0	10.0	5.0	0.0
Polar Icebreaker				
• Polar Icebreaker. This acquisition, announced in Budget 2008, will build a new vessel to support CCG's icebreaking mandate.[5]	800.0	5.9	9.9	784.2
Major Repairs, Refits, and Refurbishments				
Projects Under Way				
NCSP Phase II				
• **Refurbishment – Air Cushion Vehicles**	3.3	2.4	0.4	0.5
• **Refurbishment - Icebreakers**	13.7	7.2	3.3	3.2
• **Refurbishment – Light Icebreakers**	8.8	3.0	2.7	3.1
• **Refurbishment – Marine Service Vessels**	8.5	7.9	0.6	0.0
• **Refurbishment – Patrol Vessels**	8.4	7.4	1.0	0.0
• **Refurbishment – Program Boats**	8.4	2.6	0.7	5.1
• **Refurbishment – Research Vessels**	4.5	0.5	0.4	3.6
• **Refurbishment – Offshore Research Vessels**	9.1	1.5	0.9	6.7
NCSP – Phase III				
• **Refurbishment – Marine Service Vessels**	8.3	0.0	2.5	5.8
• **Refurbishment – Patrol Vessels**	8.2	0.0	1.3	6.9
Refit Vessels (5 Regions)	50.7	0.0	40.6	10.1
Refit Helicopters. Undertake the repair and maintenance necessary to maintain helicopter safety and capability and ensure that the helicopter fleet can continue to be operational.	7.1	0.0	7.1	0.0
Projects Approved in Principle, Awaiting Funding				
Pierre Radisson. Refurbish the propulsion system to ensure that the vessel remains operational and can meet program requirements.	10.5	0.0	5.0	5.5

[5] This acquisition was announced in the 2008 Federal Budget. TEC for this project is $800M on a cash basis ($720M on an accrual basis).

Project Description	Total Estimated Cost (millions of dollars)	TEC Used	2010-2011 Forecast	TEC Remaining
Vessel Maintenance Management				
Project Under Way				
Vessel Maintenance Management Review (VMMR). Following completion of a Vessel Maintenance Review (VMMR) and CCG Management Board approval, CCG will invest in additional technical and marine engineering resources to support the strengthening of CCGs National Vessel Maintenance Management (VMM) Framework by establishing new shore-based teams and staffing select positions ashore and aboard vessels to close critical gaps in capability.	32.5	0.0	3.2	29.3
Projects Approved in Principle, Awaiting Funding				
Specialty Vessel Replacement (CCGS *A.H.Chevarie*). Acquire a newly designed and constructed Specialty Vessel to maintain the level of service required to meet program requirements.	4.4	0.3	0.2	3.9
Near-shore Fishery Research Vessel (CCGS *Shamook* Replacement). Acquire a Near-shore Fishery Research Vessel to replace CCGS *Shamook* that can perform the required missions more efficiently and effectively.	16.0	0.6	0.0	15.4
Vessel Life Extensions				
Projects Under Way				
CCGS *John P. Tully*. Undertake VLE on CCGS *John P. Tully*, a 69-metre Offshore Fisheries Science Vessel that is 21 years old.	15.8	15.4	0.4	0.0
CCGS *Griffon*	12.6	0.4	0.0	12.2
System Enhancements				
Projects Under Way				
Halon 1301 Replacement Program (final year of project). Acquire and install ozone-safe fire-fighting systems to replace the existing Halon 1301 systems on all CCG vessels within all Coast Guard regions to meet EC regulations by 2010.	10.4	10.2	0.2	0.0
Integrated Navigation Systems. Procure and install a combined Automatic Identification System, DGPS, and Electronic Navigational Chart System on selected DFO/CCG vessels.	10.2	4.6	1.2	4.4
E-Mail Aboard Ships (final year of project). Deliver the capability for all shipboard personnel on 55 designated vessels to receive personally addressed e-mail from any other person or agency ashore; also provide intranet and Internet access.	9.1	9.0	0.1	0.0
iFleet. Upgrade the existing obsolete system (1993), increase the security of the system, ensure the provision of timely information, and ensure compliance with Treasury Board policies.	4.3	2.3	1.8	0.2
CCG APS Improvement and Upgrade Project. Upgrade the CCG Automated Performance Solution (CCGAPS), the most critical business management tool available to Coast Guard for the reporting of vessel activities.	3.5	0.6	1.5	1.4
CCG College Simulators. Modernize two of the CCG College's simulators: the Marine Propulsion Plant Simulator and the Blind Pilotage Radar Simulator. Both simulators are beyond the normal 10-year industry standard for hardware and software support.	7.2	0.5	6.0	0.7
Flight Following System. Install a Flight Following System (FFS) on each of the 23 helicopters and 18 helicopter-capable vessels in the CCG fleet.	2.8	0.1	2.1	0.6
Vessel Tracking. Install a near–real-time Vessel Tracking System onboard 116 CCG vessels and 100 CCG small craft.	3.6	0.1	2.3	1.2
Projects Approved in Principle, Awaiting Funding				
Business Data Exchange Improvements for Ships. Improve the Canadian Coast Guard fleet's ability to exchange business data ship-to-shore and shore-to-ship.	4.2	0.8	2.0	1.4

Annex B: Research and Development Program

The ongoing projects for 2010-2011, listed below, have detailed deliverables that are required to achieve mission goals.

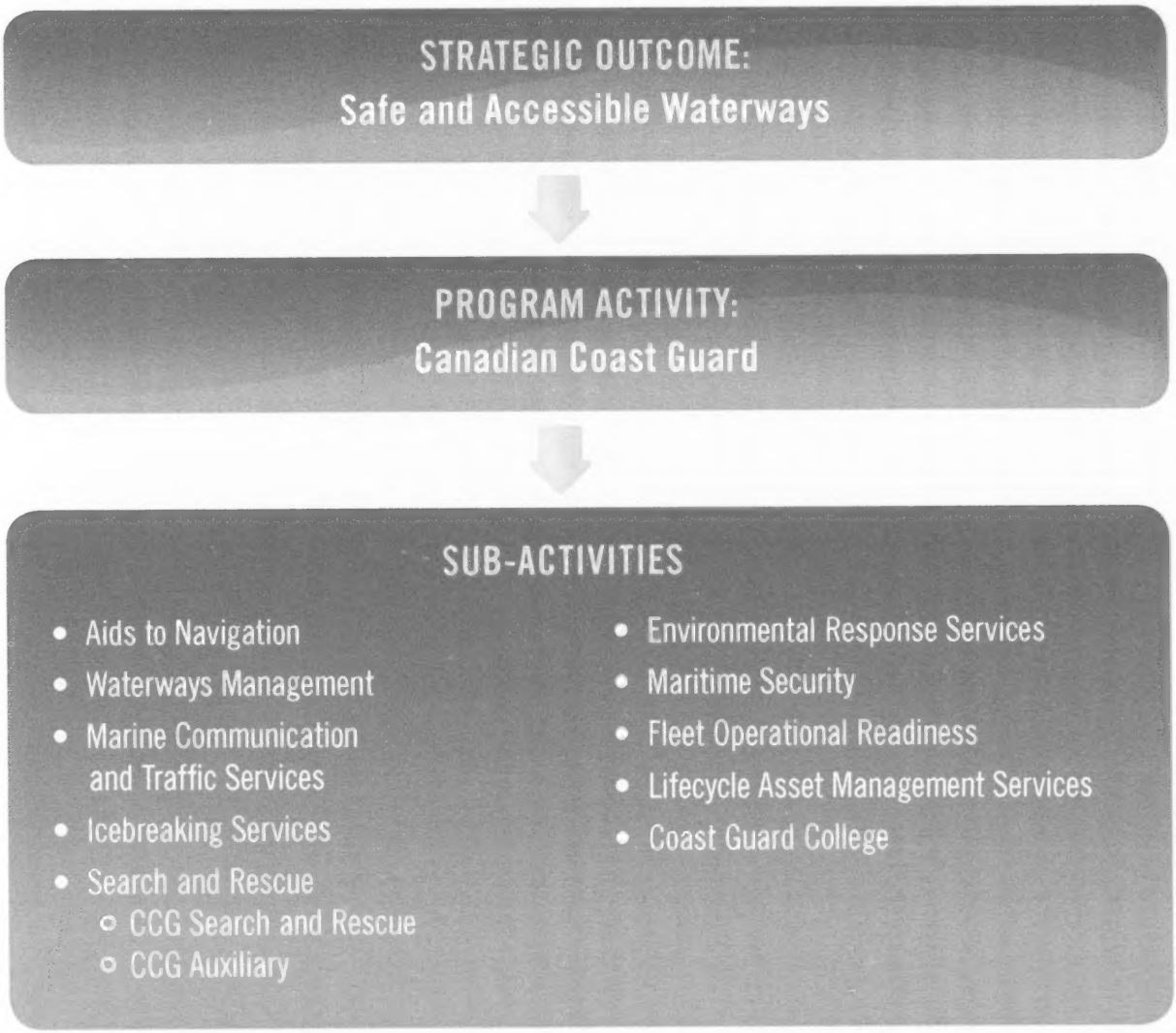
Project Code	Project Title	Total Estimated Cost	2010-2011 Funding (000's)
Aids to Navigation			
FJNF3	Four Season Lighted Spar Buoy (Quebec Region)	1,227.4	**25.0**
Waterways Management Services			
FMCF3	Under Keel Clearance MODULE (A component of the Monitoring and Identification of Risks Integrated Tool (MIRIT) (Quebec Region))	260.0	**70.0**
Icebreaking Services			
FVGV6	Ice Hazard Radar (Headquarters)	426.0	**55.0**
		TOTAL	**150.0**

Annex C: CCG Program Activity Architecture

CCG's Program Activity Architecture (PAA) explains how we contribute to Safe and Accessible Waterways, one of DFO's three strategic outcomes. Safe and Accessible Waterways is about providing access through Canadian waterways and ensuring the overall safety and integrity of Canada's marine infrastructure for the benefit of all Canadians.

The Canadian Coast Guard is one of several program activities in DFO's PAA. Like the other program activities, the Coast Guard program activity has a number of sub-activities, each of which contributes to the CCG program activity.

The image below shows the relationship among the Safe and Accessible Waterways strategic outcome, the CCG program activity, and CCG sub-activities.



Annex D: Auditor General's Recommendations (2000 and 2002):

CROSSWALK TO 2010-2011 BUSINESS PLAN COMMITMENTS

In its 2007 Status Report, the Auditor General found that the Coast Guard had not made satisfactory progress addressing recommendations from previous audits on the Fleet (2000) and marine navigational services (2002). The Auditor General noted that one of the contributing factors was that the Coast Guard had tried to deal with all of the previous recommendations simultaneously and, as a result, had not been able to address any satisfactorily.

The 2007 Report outlined the following recommendations for the Coast Guard: focus on establishing priorities for improvement; set clear achievable goals for those priority areas,; allocate sufficient, appropriate resources; and plan and implement the changes by holding managers and organizational units accountable for results. The Canadian Coast Guard committed to using the business planning process to establish priorities for improvement in the context of delivering its programs and services.

In its "Managing the Coast Guard Fleet and Marine Navigational Services – Fisheries and Ocean Canada" Report, dated April 2008, the Senate Committee on Public Accounts (SCOPA) recommended that the Coast Guard Business Plan include an appendix cross-referencing the Plan's commitments with the Auditor General's findings. This Annex responds to that SCOPA recommendation.

Listed below are the Auditor General's 2000 and 2002 recommendations followed by the 2010-2011 Business Plan commitments which are linked to these recommendations. In a few instances, there are certain actions led by the Coast Guard which are not specific commitments within the Business Plan.

Auditor General's Recommendations - 2000

1. **The Department should review how the fleet fits into its current organizational and accountability structure and take measures to ensure that the fleet can operate in a cost-effective manner (paragraph 31.72)**
   - Fair and Effective Management
     - o Completed.

2. **The Department should address the weaknesses associated with its key fleet management processes, including:**

   a) **Establishing clear, concrete and realistic program performance expectations that include a long-term perspective.**
   - Service Level Agreements with Clients for Fleet Services
     - – Develop the Maritime Services and Fleet Service Level Agreement.

   b) **Establishing a long-term fleet planning and funding horizon**
   - Ongoing Improvements in Fleet Management
     - – See commitments under Recommendation 3.

   c) **Developing service accords between the programs and the fleet**
   - Service Level Agreement with Clients for Fleet Services
     - – The completed Service Level Agreements with DFO Science and Fisheries and Aquaculture Management – Conservation & Protection has been implemented on a 'pilot' basis for a three year period (commenced fiscal April 1, 2009). As per the terms of the Service Level Agreement, performance will be monitored in alignment with planned costing and budgetary processes.

d) **Establishing budgetary processes that support accountability**

- Completed.

e) **Setting up integrated information systems to enable the Department to monitor and account for the actual performance of the fleet in terms of service and cost.**

- Completed.

f) **Implementing costing policies that support the use of the lowest-cost alternative in acquiring service while meeting departmental objectives (paragraph 31.73)**

- Completed.

3. **The Department should consider a longer-term strategy to renew its aging fleet. Such a strategy should take into consideration the changing nature of program requirements, the impact of technological change and the potential for alternative means of acquiring the service needed (paragraph 31.106)**

- Procurement of New and Replacement Vessels
  - Begin construction of the first of nine Mid-shore Patrol Vessels.
  - Issue a competitive Request for Proposal, and award a contract to design three Offshore Fisheries Science Vessels
  - Issue a competitive Request for Proposal, and award a contract to design an Offshore Oceanographic Science Vessel.
  - Develop the Operational Requirements and Conceptual Design for the new Polar Icebreaker.
  - Award contract for construction of Air Cushion Vehicle (ACV).
- Economic Action Plan
  - Approve and accept delivery of the five 47 ft SAR Lifeboats.
  - Award contract and complete Vessel Life Extension for:
- CCGS *Cape Roger*
- CCGS *Tanu*.
  - Approve and accept delivery of two 22 meter Near-shore Fisheries Science Vessels and one 25 meter Near-shore Fisheries Science Vessel.
  - Plan and complete $19M of additional refit activities (representing work on 35 vessels).
  - Approve and accept delivery of 30 replacement Environmental Response Barges.
  - Purchase and acceptance of the remaining small craft, for a total of 60.

4. **The Department should complete the development and implementation of lifecycle management policies and procedures for its fleet (paragraph 31.107)**

- Improved Maintenance of the Existing Fleet
  - Fully operationalize the Centre of Expertise for vessel maintenance management by funding and beginning to staff Phase I of the Vessel Maintenance Management Review (VMMR) Capital funded positions.
  - Put into practice the vessel maintenance program process as per the Vessel Maintenance Management (VMM) Manual, including the review process for the VMM Manual and the review and evaluation program for vessel maintenance.
  - Implement the Vessel Continuous Condition Survey Program and deliver the CCG vessels condition assessment report.
  - Finalize the 5 year detailed plan for vessel maintenance for all vessels.
  - Publish standard maintenance plans for ACV and for the 47ft Motor Lifeboats (MLB) and add them to CCG's Asset Management System.
  - Implement standardized maintenance plans for ACV and for the 47ft MLB as per maintenance plans in the Asset Management System.
  - Using MAINTelligence, monitor consistency in maintenance practices (based on maintenance plan) for type 1100 class.

  - Develop the standard general notes/services section for refit specification, as well as the general template for use when contracting refit activities.
- See commitments under Recommendation 1.

5. **The Department should ensure that the fleet activity is supported by information systems that produce integrated, timely, reliable and relevant information (paragraph 31.108)**
   - Ongoing Improvement in Fleet Management
     - See commitments under Recommendation 3.

6. **The Department should develop a human resource strategy for the fleet to address the need to maintain the skills and knowledge of ship-based personnel and to ensure that a sufficient number of qualified officers and crew are available in the future. The strategy should consider a long-term approach to the collective agreements with ship's personnel so that they can be administered in an efficient and economical manner and can support the fleet's operational requirements (paragraph 31.137).**
   - See section "Our People".
   - Through CCG's Strategic Human Resources Plan, a number of strategies, initiatives and frameworks are being put into place to address key organizational needs:
     - A Qualified and Representative Workforce
       - Develop outreach material targeting persons with disabilities to allow them to envisage work at sea.
       - Make outreach material available to regions for distribution at career and outreach events targeting secondary and College students, emphasizing the Agency's need for a diverse workforce.
       - Continue our participation in the Partners for Workplace Inclusion Program in Vancouver, British Columbia, and in St. John's, Newfoundland.
       - Increase overall employment equity representation by seven percent.
     - Develop and Support People
       - Launch a more structured CCG Orientation Program for all new employees.
       - Evaluate the national Leadership Development Pilot Program and determine next steps.
       - Implement a nationally consistent automated system to capture training needs identification, data collection and reporting.
       - Implement a structured approach to dealing with requests for developmental language training.
     - Fair and Effective Management
       - Continue transition to Standard Organization.

7. **The Department should regularly analyze payroll costs related to the fleet and take action to control such costs, where necessary (paragraph 31.138)**
   - Ongoing Improvements in Fleet Management

Auditor General's Recommendations – 2002

8. **The Canadian Coast Guard should ensure that there are up-to-date national policies, standards and levels of service expectations for its navigational support services. It should also develop the capability to monitor the implementation of these policies, standards, and expectations. (paragraph 2.53)**
   - Levels of Service Review
     - Completed.
   - Aids to Navigation 21st Century (AToN21)
     - Complete the modernization of the five remaining aids to navigation directives.
     - Completed (project close-out report).
   - Search and Rescue Needs Analysis
     - Implement the recommendations of the Search and Rescue Needs Analysis approved for 2010-2011.

9. **For its navigational support services and boating safety activities, Fisheries & Oceans Canada should do the following[6]:**

   a) **Complete the implementation of its results-based management and accountability frameworks;**

   - Strategic Program Framework for CCG's Maritime Services
     - Completed

   b) **Establish clear, measurable, concrete targets for the identified outputs and immediate outcomes for each framework;**

     - Completed

   c) **Identify who is accountable for achieving targets and managing resources;**

     - Completed.

   d) **Align budgeting and resource allocation with the frameworks; and**

     - Completed.

   e) **Develop or identify sources of information to measure results (paragraph 2.68)**

     - Completed.
     - CCG will review annually the type and quality of data to ensure that credible and timely performance information is available.[7]

10. **The Coast Guard should complete and implement its draft guidance on risk management (paragraph 2.73)**

    - Completed.

11. **Fisheries & Oceans Canada should develop and implement strategies to modernize and integrate the delivery of its navigational support services to meet user needs (paragraph 2.77)**

    - e-Navigation
      - Develop a federal vision/strategy and a high level implementation plan for e-Navigation, in consultation with other government departments.
    - AToN21
      - Please see commitments under Recommendation 8.

12. **Fisheries and Oceans Canada should develop and implement an overall strategy for the future of its light stations, considering maritime safety and heritage objectives (paragraph 2.90)**

    - Support the work of the Senate Standing Committee on Fisheries and Oceans on the review of lightstation services.

[6] Note: the boating safety activities (Office of Boating Safety) were transferred to Transport Canada in 2003.

[7] Please note that this is not a Business Plan commitment.

Annex E: Management Agenda

The Coast Guard has a clear management agenda that is consistent with the broader Management Accountability Framework (MAF) that applies to all departments and agencies (http://www.tbs-sct.gc.ca/maf-crg/documents/booklet-livret/text-texte_e.asp#g1). The following chart lists some of the initiatives and activities that the Coast Guard is undertaking over the next three years that relate to the 10 elements of the MAF.

Public Service Values

- Stronger CCG identity through common internal communications material and a stronger national web presence

Governance and Strategic Directions

- Regularly use effective advisory structures, including interdepartmental clients
- Manage activities based on the CCG Agency Business Plan
- Improve CCG's support of the maritime security agenda
- Address commitments in the DFO Sustainable Development Strategy (SDS)

Policy and Programs

- Provide technical training for MCTS, SAR, and ER to ensure continuous learning and renewed capacity
- Conduct a systematic review of CCG's Maritime Services using a framework based on the MAF

People

- Update the CCG Strategic Human Resources Plan for 2010-2013. Strategies include:
  - Qualified and Representative Workforce
  - Develop and Support People
  - Fair and Effective Management
- Launch the new CCG Careers website

Citizen-focused Service

- Develop a federal vision/strategy and a high-level implementation plan for e-Navigation, in consultation with other government departments
- Complete the revision of the National Environmental Response Strategy

Risk Management

- Manage CCG's Corporate Risk Profile and continue to update and integrate mitigation strategies into the Business Plan
- Implement recommendations after reviewing communication processes and protocols in the field of emergency preparedness

Stewardship

- Manage new vessel procurements through the CCG Major Crown Projects Directorate
- Continue to address the findings of the Vessel Maintenance Management Review

Accountability

- Integrate Business Plan priorities and commitments into management Accountability Accords.

Results and Performance

- Report on Business Plan commitments at mid-year and year-end
- Cross-reference the CCG Agency Business Plan commitments with the Auditor General's recommendations
- Review performance measures in light of stakeholder consultation

Learning, Innovation and Change Management

- Ensure all CCG employees have an individual learning plan and annual performance review
- Implement the Continuous Learning and Development Framework
- Distribute regular "Notes from the Desk of the Commissioner" and "Town Halls" to all staff
- Have regular Union-Management Consultation Committee meetings
- Develop a Research and Development strategy

List of Acronyms

AC	Assistant Commissioner
ACV	Air Cushion Vehicle
ABS	Asset Breakdown Structure
AG	Auditor General
AIS	Automatic Identification System
AMS	Asset Management System
ATN	Aids to Navigation
AToN21	Aids to Navigation of the 21st Century
AWPPA	Arctic Waters Pollution Prevention Act
BIO	Bedford Institute of Oceanography
C&A	Central and Arctic
C&P	Conservation and Protection
CCG	Canadian Coast Guard
CCGA	Canadian Coast Guard Auxiliary
CCGAPS	CCG Automated Performance Solution
CCGC	Canadian Coast Guard College
CCGOTP	CCG Officer Training Program
CCS	Communications Control System
CHS	Canadian Hydrographic Service
CIS	Canadian Ice Service
CLF	Common Look and Feel
CMAC	Canadian Marine Advisory Council
CMTDMS	Configuration Management and Technical Data Management System
COE	Centre of Expertise
DF	Direction Finding
DFO	Fisheries and Oceans Canada
DG	Director General
DGPS	Differential Global Positioning System
DND	Department of National Defence
DOT	Department of Transport
DSC	Digital Selective Calling
EAP	Economic Action Plan
EC	Environment Canada
ED	Executive Director
EE	Employment Equity
EEMAP	Employment Equity Management Action Plan
EPA	Effective Project Approval
ER	Environmental Response
FAIS	Fleet Activity Information System
FAM	Fisheries and Aquaculture Management
FERP	Federal Emergency Response Plan
FFS	Flight Following System
FMO	Federal Monitoring Officer
FRC	Fast Rescue Craft
FRP	Fleet Renewal Plan
FTE	Full-Time Equivalent
GMDSS	Global Marine Distress and Safety System
HF	High Frequency
HRCS	Human Resources and Corporate Services
HSE	Health, Safety and Environmental
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IAMSAR	International Aeronautical and Maritime SAR
IBMS	Integrated Business Management Services
IIP	Integrated Investment Plan
IISPA	Ice Information Services Partnership Agreement
IMO	International Maritime Organization
INNAV	Information System on Marine Navigation
IRB	Inshore Rescue Boat
ITS	Integrated Technical Services
JRCC	Joint Rescue Coordination Centre
LCAMS	Lifecycle Asset Management Services
LCM	Lifecycle Management
LCMS	Lifecycle Management System
LED	Light-emitting Diode
LMAC	Local Marine Advisory Council
LNG	Liquefied Natural Gas
LO	Liaison Officer
LOS	Levels of Service
LRIT	Long Range Identification and Tracking
MAF	Management Accountability Framework
MB	Management Board
MCP	Major Crown Projects
MCPD	Major Crown Projects Directorate
MCTS	Marine Communication and Traffic Services
MCTSO	Marine Communication and Traffic Services Officer
MDS	Message Data System

MELDEV	Marine Electronics Development
MF	Medium Frequency
MIRIT	Monitoring and Identification of Risks Integrated Tool
MLB	Motor Lifeboats
MMET	Marine Maintenance and Equipment Training
MRRS	Management Resources and Results Structure
MRSC	Marine Rescue Sub-Centre
MS	Maritime Services
MSET	Marine Security Enforcement Team
MSOC	Marine Security Operations Centre
MSPV	Mid-Shore Patrol Vessels
NACGF	North Atlantic Coast Guard Forum
NAFO	Northwest Atlantic Fisheries Organization
NAVAREA	Navigational Area
NCC	National Coordination Centre
NCSP	National Capital Spending Plan
NL	Newfoundland and Labrador
NLFRD	National Labour Force Renewal Directorate
NMAB	National Marine Advisory Board
NOTMAR	Notices to Mariners
NOTSHIP	Notices to Shipping
NPCGF	North Pacific Coast Guard Forum
NRCan	Natural Resources Canada
NSERC	Natural Sciences and Engineering Research Council of Canada
O&M	Operations and Maintenance
OAG	Office of the Auditor General
OFSV	Offshore Fisheries Science Vessels
OGD	Other Government Departments
OHS	Occupational Health and Safety
OOSV	Offshore Oceanographic Science Vessel
OpNet	Operational Network
OSC	On-Scene Commander
PAA	Program Activity Architecture
PRS	Performance Review System
PSES	Public Service Employee Survey
PWGSC	Public Works and Government Services Canada
R&D	Research and Development
RCMP	Royal Canadian Mounted Police
RCO	Remote Control Outlet
RFP	Request for Proposal
RHIB	Rigid Hull Inflatable
RO	Radio Operations
ROC	Regional Operations Centre
RMAB	Regional Marine Advisory Board
SAC	Strategic Advisory Council
SAR	Search and Rescue
SCAP	Small Craft Acquisition Plan
SCOPA	Standing Committee on Public Accounts
SCOFO	Senate Standing Committee on Fisheries and Oceans
SDS	Sustainable Development Strategy
SISAR	Système Informatisé SAR
SLA	Service Level Agreement
SLSMC	St. Lawrence Seaway Management Corporation
SMIS	Salary Management Information System
SMMS	SAR Mission Management System
SO	Standard Organization
SOA	Special Operating Agency
SOLAS	International Convention for the Safety of Life at Sea
SR	Strategic Review
TBS	Treasury Board Secretariat
TC	Transport Canada
TEC	Total Estimated Cost
TSB	Transportation Safety Board of Canada
TSC	Technical Solution Centre
UNCLOS	United Nations Convention on the Law of the Sea
USCG	United States Coast Guard
VHF	Very High Frequency
VLE	Vessel Life Extension
VMM	Vessel Maintenance Management
VMMR	Vessel Maintenance Management Review
VNR	Vote Netted Revenue
VTMIS	Vessel Traffic Management Information System
VTOSS	Vessel Traffic Operator Support System
VTS	Vessel Traffic Services

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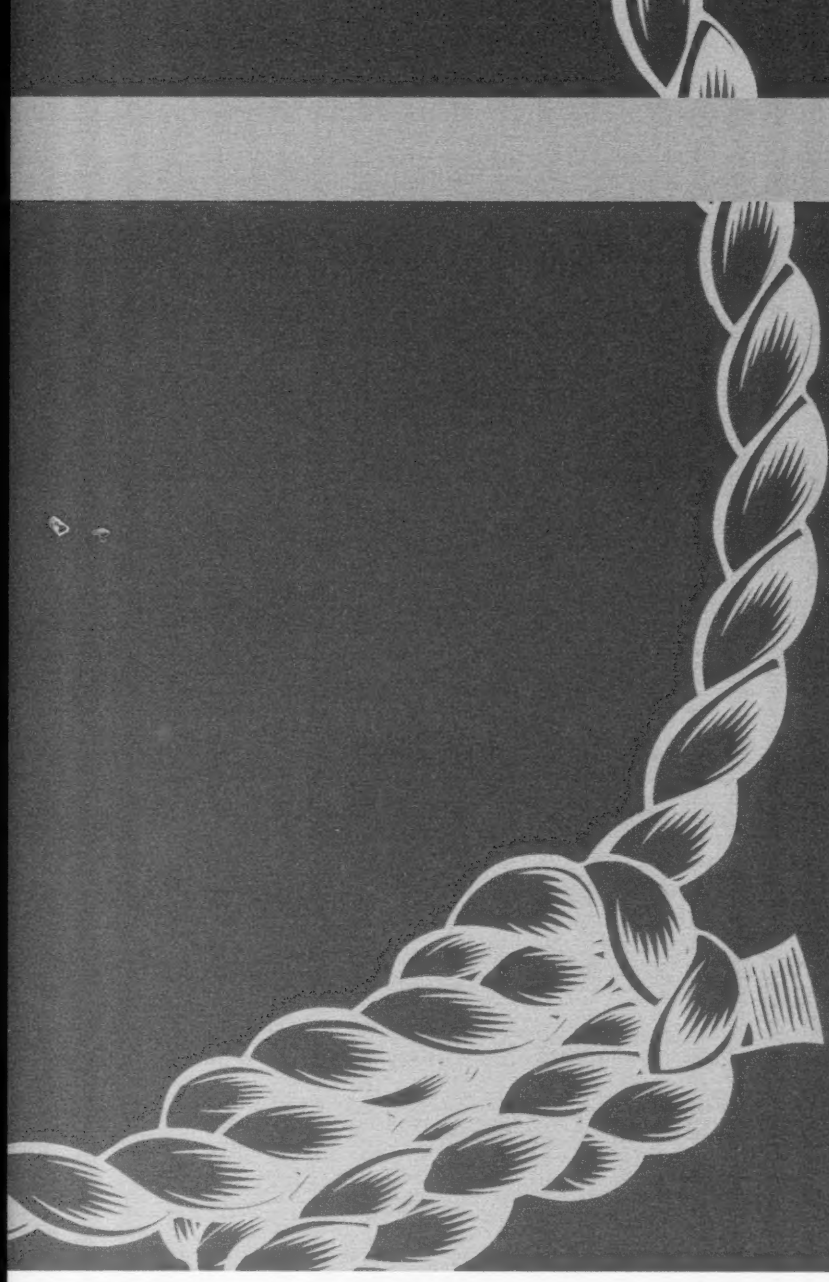

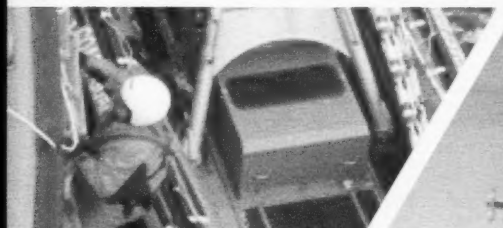
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